28th SOFT 2014

Symposium on Fusion Technology

September 29th / October 3rd 2014
San Sebastian, Spain

FINAL PROGRAMME

www.soft2014.eu

GOBIERNO DE ESPAÑA
MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD
Ciemat
Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas

SOFT 2014 | CONFERENCE SCHEDULE

	SUNDAY 28 SEPT.	MONDAY 29 SEPT.			TUESDAY 30 SEPT.			WEDNESDAY 1 OCT.	THURSDAY 2 OCT.			FRIDAY 3 OCT.
07:30		Registration										
08:30		Opening | OL: Siegler			I2.1 Romanelli		ITER	I3.1 Horton	I4.1 Knaster			I5.1 Barabaschi
09:10		I1.1 Motojima			I2.2 Merola		Industrial	I3.2 Milnes	I4.2 Bucalossi			I5.2 Rapisarda
09:50		I1.2 Bindslev			I2.3 Bora		Infoday	I3.3 Biel	I4.3 Tran			I5.3 Angelone
10:30		Break | Opening exhibition area			Break			Break	Break			Break
11:00		I1.3 Bosch			Round table			Posters 3	O4A (I-H)	O4B (F-G)	O4C (B)	I6.1 Rieth
11:40		O1A (H)	O1B (A)	O1C (J)	SOFT & Infoday							I6.2 Stieglitz
12:20		Lunch			Lunch			Lunch	Lunch			Closing
14:20	16:00 Registration 17:00 Welcome drink	Posters 1			Posters 2		Industrial Infoday	Technical and cultural tours	Posters 4			
16:00		Break			Break				Break			
16:40		O2A (H)	O2B (A)	O2C (J-C)	O3A (D)	O3B (F)	O3C (E)		O5A (I)	O5B (G)	O5C (B-D)	
18:00												
18:30		Reception										
20:00	Closed				20:00 Concert				20:00 Dinner			

Auditorium (1.800 seats) | Plenary sessions
Auditorium (1.800 seats)
Chamber hall (625 seats)
Room 10 (170 seats)
Banquet hall, basement floor

28th Symposium on Fusion Technology | SOFT 2014
San Sebastián, Spain
29th September 3rd October 2014

Satellite Meetings

updated 09/09/2014

Satellite meeting name	Date	Time	Room	Contact	Type (Limited seats in all cases)
International Workshop on Sub-Task Fusion Neutronics under IEA Implementing Agreement on a Co-operative programme on the Nuclear Technology of Fusion Reactors	M. 29 Sept	15:30-18:15	Room 4	Rosaria Villari	Upon request (email to rosaria.villari@enea.it)
SINBAD Work Plan Discussion	M. 29 Sept	16:30-20:00	Room 4	Dieter Leichtle	Upon request (email to dieter.leichtle@f4e.europa.eu)
8th Data Specialists Meeting for IEA-ESE/FP Subtask 5 "Failure Rate Database"	M. 29 Sept	16:30-18:30	Room 5	Lee Cadwallader	Upon request (email to Lee.Cadwallader@inl.gov)
F4E ILOs Meeting	M. 29 Sept	13:30-20:00	Room 6	Mehdi Daval (F4E) & Belén del Cerro (CDTI)	Private meeting
20th IEA Subtask-1 Review Meeting on Solid Breeder Blanket	M. 29 Sept	16:00-18:00	Room 7	Alice Ying	By invitation only
IEA Implementing Agreement for Fusion Materials Development W-Satellite meeting	M. 29 Sept	15:30-18:30	Room 8	Michael Rieth	By invitation only / Upon request (email to michael.rieth@kit.edu)
F4E EFLOs Meeting	M. 29 Sept	12:00-20:00	Room 9	Raymond Monk (F4E)	Private meeting
Meeting of the Strategic Advisory Board of the Erasmus Mundus Doctoral Programme in Nuclear Fusion Science and Engineering	T. 30 Sept.	16:30-18:00	Room 5	Jean-Marie Noterdaeme	Private meeting
Executive Committee Meeting for IEA Implementing Agreement Cooperative Programme on the Environmental, Safety and Economic Aspects of Fusion Power (ESEFP)	W. 1 Oct.	14:00-18:00	Room 4	Zhibin Chen	1st part : Open to all delegates 2nd part : Private meeting
IEA Reduced Activation Ferritic/Martensitic Steels Coordination Meeting	W. 1 Oct.	14:20-17:00	Room 5	Hiroyasu Tanigawa	Upon request (email to tanigawa.hiroyasu@jaea.go.jp)
Goal Oriented Trainee Program GOT-4-DIAG EUROFUSION	W. 1 Oct.	09:00-18:00	Room 6	Theo Scherer	Private meeting
24th IEA Annex II Workshop on Radiation Effects in Ceramic Insulators	W. 1 Oct.	14:00-18:00	Room 7	Eric Hodgson	Upon request (email to hodgson@ciemat.es)
BeYOND (Beryllium Opportunities for New Developments)	W. 1 Oct.	11:00-19:00	Room 8+9	Aniceto Goraieb	Upon request (email to jutta.howell@kit.edu | goraieb@kbhf.org)
1st SOLARNET Technology Transfer Workshop	Th. 2 Oct.	09:00-13:00	Room 4	Richard Seddon	Open to all participants
Design and Integration of Diagnostics systems in ITER ports: Needs and opportunities for industry	Th. 2 Oct.	15:00-18:00	Room 4	Victor Udintsev / Natalia Casal	Open to all participants
IEA WGIFT (WG of Irradiation Facility and Tests)	Th. 2 Oct.	13:00-14:30	Room 5	Eiichi Wakai & Richard J. Kurtz	Upon request (e-mail to wakai.eiichi@jaea.go.jp)
Intl. Energy Agency Implementing Agreement on Fusion Materials Executive Committee	Th. 2 Oct.	16:00-18:00	Room 5	Richard J. Kurtz	Upon request (email to rj.kurtz@pnnl.gov)
Executive Committee Meeting of IEA Implementing Agreement on a Co-operative Programme on the Nuclear Technology of Fusion Reactors	Th. 2 Oct.	14:00-17:00	Room 6	Masato Akiba	Private meeting

TABLE OF CONTENTS

SOFT PRESENTATION

WELCOME

Dear Madam, Dear Sir,

Welcome to the 28th Symposium on Fusion Technology, SOFT 2014, and welcome to Donostia-San Sebastián!

This symposium is organized by CIEMAT, the Spanish Research Centre for Energy, Environment and Technology.

We are proud to offer a very broad scientific and technological programme. Spread over more than 800 contributions, this programme will allow you to listen to high level invited talks and to a selection of high quality oral contributions. You will have the opportunity to discuss in detail a large number of issues during four poster sessions, comprising around 750 contributions.

On Tuesday, 30 September, the "ITER Industrial Infoday" will take place simultaneously with the main conference, with industry-oriented talks and thematic workshops. The central element of this Infoday will be a joint round table on the theme " Technology Transfer and Collaboration Models between labs and industry ". A strong active collaboration with the Industry Liaison Officers and the Fusion Industrial Forum has allowed us to set up, concurrently to the conference, a significant industrial exhibition with around 50 stands from large companies, SMEs and technology centers. Moreover, a B2B networking system is provided to enhance and optimize interactions between and within the scientific and industrial worlds. Like in previous conferences of this series, satellite meetings will be taking place, offering the opportunity to several interest groups to address their specific matters or hold one of their regular meetings.

We have also managed to provide you with a social programme to relax after the hard work. Technical as well as cultural tours are proposed on Wednesday afternoon to neighbouring research centers, industrial companies or touristic sites. The three technical tours will end in a visit to the Basque Culinary Center, an institution for Research and Innovation in Food and Gastronomy. In addition to the welcome reception, we have organized for you a concert performed by the Orfeon Donostiarra, a local, yet world-class choir set up more than one century ago and a dinner in the late 19th-century Palacio de Miramar.

Together with our professional conference organizer Barceló Congresos, we wish you a very fruitful and interesting conference.

Yours sincerely,

Joaquín Sánchez
Chairman of the International Organising Committee

Enrique Ascasíbar
Chairman of the Local Organising Committee

INTERNATIONAL ORGANISING COMMITTEE

Joaquín Sánchez (Chairman)	CIEMAT, Spain
Enrique Ascasíbar	CIEMAT, Spain
Sylvain Bremond	CEA-IRFM, France
Lorenzo Boccaccini	KIT, Germany
Walter Fietz	KIT, Germany
Bruno Gonçalves	IST, Portugal
Ángel Ibarra	CIEMAT, Spain
Chris Ibbott	European Commission, Belgium
Regina Knitter	KIT, Germany
Christian Linsmeier	FZJ, Germany
Vincent Massaut	SCK-CEN, Belgium
Jean-Marie Noterdaeme	IPP, Garching, Germany
Roberto Piovan	CNR-Consorzio RFX, Italy
Tom Todd	CCFE, UK
Silvano Tosti	ENEA, Italy

LOCAL ORGANISING COMMITTEE

Chairman	Enrique Ascasíbar (CIEMAT)
Scientific Secretary	Rafael Vila (CIEMAT)
Finances	Dina Dabbah (CIEMAT)
Research Centres and Universities	Carmen García-Rosales (CEIT)
Satellite Meetings	Juan A. Jiménez (CIEMAT)
Contact with the industry	Ana Belén del Cerro (CDTI)
	Javier Cáceres (INEUSTAR)

TECHNICAL SECRETARIAT

Barceló CONGRESOS

Plaça d'Europa 17-19
E-08908 L'Hospitalet de Llobregat (Barcelona), Spain
Ph. +34 93 882 38 78
soft2014@barcelocongresos.com
www.soft2014.eu

VENUE

All conference activities are held in the Kursaal Congress Centre of San Sebastián, an amazing architectural work by Rafael Moneo facing the Bay of Biscay, the epicentre of the city's cultural and congress activity. From the Kursaal you can easily access emblematic places of the city on foot: the Old Town and La Concha Bay, as well as the commercial areas.

Kursaal Congress Centre
Av. de Zurriola 1
20002 Donostia-San Sebastián, Spain

OBJECTIVE

The Symposium on Fusion Technology is the leading event to exchange information on design, construction and operation of fusion experiments and on the technology for present fusion machines and future power plants. With the construction of ITER well under way, fusion research is making a significant step forward. SOFT includes oral and poster presentations as well as industrial and R&D exhibitions.

LANGUAGE

The official language of the SOFT is English. No simultaneous translation is provided.

TOPICS

The presentations submitted and accepted to the conference are classified according to the following list of topics:
A) Experimental Fusion Devices and Supporting Facilities
B) Plasma Heating and Current Drive
C) Plasma Engineering and Control
D) Diagnostics, Data Acquisition and Remote Participation
E) Magnets and Power Supplies
F) Plasma Facing Components
G) Vessel/In-Vessel Engineering and Remote Handling
H) Fuel Cycle and Breeding Blankets
I) Materials Technology
J) Power Plants Safety and Environment, Socio-Economics & T.
K) Laser and Accelerator Technologies

SOFT CONTRIBUTIONS

INVITED PRESENTATIONS

The invited presentations take place in the main Auditorium of the Kursaal located in the ground floor. Invited talks are allotted 40 minutes in total (30 minutes for presentation and 10 minutes for discussion).

ORAL PRESENTATIONS

Oral presentations take place in 3 simultaneous sessions in rooms Auditorium, Chamber Hall and Room 10. The time allocated for each oral presentation is 20 minutes in total (15 minutes for presentation and 5 minutes for discussion).

Acceptable presentation formats are PPT and PDF.

SPEAKERS' ROOM

The speakers' room is located in the lobby of the Chamber hall in the ground floor of the venue (see floor-plan at the end of this final programme). Invited speakers and presenting authors are kindly requested to test and deliver their presentations to the technicians located in the speakers' room the day before their presentation. The technicians will migrate the presentation to the corresponding session's room.

POSTER PRESENTATIONS

The size of the poster must be 90 cm wide and 120 cm high maximum. Each poster presentation will be displayed for the day of the poster session. Authors are kindly requested to be available for discussion of their work during the designated poster session. Posters are displayed on the Banquet hall located in the basement floor of the venue. Posters should be installed in the morning and removed after the poster session (no later than 18.30 h.). Left over posters will be thrown away. Poster presentations are listed and numbered in this final programme. The same numbers are used for numbering the poster boards. Material to fix the posters on the panels is available in the poster area.

LATEST NEWS SCREEN

Check the info screen at the entrance hall of the venue for last minute information.

COMMUNICATION

For any additional information about the programme and the conference organisation please go to the registration desk located in the entrance hall of the venue, Kursaal Congress Centre.

Wireless network connection is provided by the venue (please note that it is a complimentary and basic service).
The name of the Wi-Fi is: **softconference**
The password is: **soft2014**

ITER INDUSTRIAL INFODAY

Within the framework of the SOFT 2014 an ITER Industrial Infoday meeting takes place on Tuesday 30 September 2014 from 8.30 to 16.00 h. in meeting room nr. 10 located in the ground floor of the venue, Kursaal Congress Centre. The round table takes place in the Auditorium. Please refer to the scientific programme for details.

SATELLITE MEETINGS

Satellite meetings are held in meeting rooms nr. 4 to nr. 9 located in the basement floor of the venue. Check the list of meetings on the front cover of this final programme.

NON-LIABILITY

The Organisation has the right, for any reason beyond their control, to modify or cancel, without prior notice, the sessions or any of the arrangements, timetables, plans or other items. The Organisers and Barceló Congresos are not be responsible for any loss, damage, expenditure or inconvenience caused to participants, and their belongings, either during or as a result of the conference. Please check the validity of your own insurance.

PRACTICAL INFORMATION

SAN SEBASTIÁN

San Sebastián is a small city of 183.000 inhabitants, with a remarkably high level of cultural activity for its size. The beauty of its Bay, known as the Pearl of the Cantabrian Sea; its situation in a natural amphitheater facing the sea and protected by mountains; its quality of life, and its famous gastronomy have turned it during the past two centuries into a world-class tourist destination. Shaped by history, it started out as a fishing village; grew as a market town and military fort, with the invasion by Napoleon's troops; and after being almost completely destroyed in 1813 by the garrison's battle against the Anglo-Portuguese, it was chosen by Queen Isabel II as the Royal Family's summer residence and began to flourish as a services city. It was in the late 19th and early 20th century that San Sebastián emerged as a city of culture, full of amenities and Northern Spain's tourist destination par excellence. Its majestic buildings and their eclectic style, which reflected the contemporary tastes of the Royal Family and bourgeoisie, give it a stately character that has adapted well to changing times. San Sebastián is world famous as a food tourism destination, since it's collected more Michelin stars per square meter of its territory than anywhere else in the world; and, as the birthplace of the "new Basque cuisine" movement, it's nurtured the renaissance of Basque gastronomy. The quality of its ingredients and its world famous "pintxos" give much pleasure to both local people and visitors all year round. For further touristic information, you can visit the website of "San Sebastián Tourist Office" at: http://www.sansebastianturismo.com/en/ or phone at +34 943 48 11 66.

In case you should need it, the general emergency assistance phone number is 112. Here are other phone numbers you can call in case of an emergency:
Local Police: 092
Ambulance: +34 943 46 46 22
City Hall: +34 943 48 10 00
Visa: +34 915 19 60 00 (for card cancellations)

For lost items, please go to the Local Police office (the address is 'Easo' street nr. 41). In case of a medical emergency, go directly to the hospital. San Sebastián has a first class hospital system and a dense network of first assistance clinics. If you already have insurance, call the insurance company first.

PUBLIC TRANSPORT

San Sebastián has a large city bus fleet run by the company Dbus for cheap, fast and easy city travel. Take a look at the different lines on the Dbus website (www.dbus.es/en). The times change depending on the line. Most services start at 07h30 and end at 22h30. The times and frequency of the different services can be found at the respective bus stops. Dbus runs a night service know as the Búho (Owl). Most of the night bus lines start at 12 o'clock midnight and end at 4 in the morning. The Búhos only runs on Friday, Saturdays and the nights before public holidays. All leave from the Boulevard. The bus lines that connect the venue Kursaal with the rest of the city are: 13, 29, 31, 37, B6, B10. Furthermore, the bus lines 5, 8, 14, 16, 21, 25, 26, 28, 29, 33 and 40 connect with 'Alameda Boulevard' which is at walking distance from the venue, Kursaal Congress Centre.

TAXI

San Sebastián has a large and modern fleet of taxis available 24 hours a day. The rates are official and operate with a taxi meter. In San Sebastián, unlike in other cities, taxis do not normally stop when hailed in the street. The best idea is to head for taxi rank or phone for one:
Taxidonosti: +34 943 46 46 46
Vallina Teletaxi: +34 943 40 40 40

COFFEES AND LUNCH

Morning and afternoon coffees are served in the exhibition area located in the basement floor of the venue. Refer to the timetable for dates and times.

Lunch is not included in the registration fees. Lunch packs have been sold by the Organisation in advance (4-day menu-lunch Monday to Thursday at the Restaurant Ni-Neu located in the venue).

Price per pack is 133 € VAT 21% included (4 lunches). Please check at the Registration desk for on-site availability. From 1st August no reimbursement in case of cancellation. Lunch vouchers can be transferred to other delegates. In case of loss, the voucher will not be reissued or refunded.

SOCIAL PROGRAMME

WELCOME RECEPTION

Date: Monday, 29 September at 18.30-20.00 h
Place: Exhibition area, rooms 1-2-3 and hall of the basement floor of the venue.
Admission: Free access to all registered delegates, accompanying persons and exhibitors.

CONCERT OF ORFEON DONOSTIARRA AT SAN TELMO MUSEUM

Date: Tuesday, 30 September at 20.00 h
Place: San Telmo Museum
Address: Plaza Zuloaga 1, San Sebastián
Tel.+34 943 48 15 80
Admission: Free access to registered delegates (regular and students) and accompanying persons who have expressed their willingness to attend upon registration. If you change your mind after being registered, please let the organizers know at the registration desk the first day of the conference, Monday 29th September, before 16.00 hrs. Limited seats, assigned on a first-come first-served basis.
Transportation: No transportation will be provided.

CONFERENCE DINNER AT PALACIO DE MIRAMAR

Date: Thursday, 2 October at 20.00 h
Place: Palacio de Miramar
Address: Paseo de Miraconcha 48, San Sebastián
Tel.+34 943 21 90 22
Admission: Free access to registered delegates (regular and students) and accompanying persons who have expressed their willingness to attend upon registration. If you change your mind after being registered, please let the organizers know at the registration desk the first day of the conference, Monday 29th September, before 16.00 hrs. Limited seats, assigned on a first-come first-served basis.
Transportation: No transportation will be provided.

TECHNICAL AND CULTURAL TOURS

Technical and cultural tours for registered delegates (not for accompanying persons) are programmed for Wednesday, 1 October, afternoon. These tours are included in the registration fee for both regular participants and students (Limited seats, assigned on a first-come first-served basis).

TECHNICAL TOUR A | CEIT, CIC NANOGUNE & GRAPHENEA

Limited to 50 persons

15.00 h. Bus departure from the conference venue (Kursaal) to the Ibaeta Park in San Sebastián. Visit to CEIT (involved in fusion reactor materials for 15 years), CIC Nanogune and Graphenea.

17:30 h. Bus departure to Technological Park of Miramón in San Sebastián. Bus-visit around the park.

18:40 h. Arrival to the Basque Culinary Centre. Welcome drink, networking and optional visit. The Welcome cocktail and visit to the Basque Culinary Centre is offered by the 'Diputación Foral de Gipuzkoa'. Bus return to the venue approximately at 20.30h.

TECHNICAL TOUR B | TECNALIA & IK4-CIDETEC

Limited to 50 persons

15:00 h. Bus departure from the conference venue (Kursaal) to the Technological Park of Miramón in San Sebastián. Visit to Tecnalia and IK4-Cidetec.

17:00 h. Bus-visit around the park.

18:40 h. Arrival to the Basque Culinary Centre. Welcome drink, networking and optional visit. The Welcome cocktail and visit to the Basque Culinary Centre is offered by the 'Diputación Foral de Gipuzkoa'. Bus return to the venue approximately at 20.30h.

TECHNICAL TOUR C | AVS, DMP & DANOBAT

Limited to 50 persons

15:00 h. Bus departure from the conference venue (Kursaal) to Elgoibar and Mendaro. Visit to AVS, DMP and Danobat.

17:00 h. Bus departure to the Technological Park of Miramón in San Sebastián. Bus-visit around the park

18:40 h. Arrival to the Basque Culinary Centre. Welcome drink, networking and optional visit. The Welcome cocktail and visit to the Basque Culinary Centre is offered by the 'Diputación Foral de Gipuzkoa'. Bus return to the venue approximately at 20.30h.

CULTURAL TOUR D | BILBAO & GUGGENHEIM MUSEUM
Limited to 200 persons

Bus departure from the conference venue (Kursaal) to Bilbao at 15.00 h. Return to the same place at 19.00 h. (estimated arrival at 20.00 h).

CULTURAL TOUR E | GETARIA & TXAKOLI
Limited to 100 persons

Bus departure from the conference venue (Kursaal) to Getaria at 15.00 h. Return to the same place at 18.15-18.30 h. (estimated arrival around 19.00 h).

CULTURAL TOUR F | SAN SEBASTIÁN WALKING TOUR
Limited to 150 persons

Departure from the conference venue (Kursaal) at 15.00 h. Return to the conference venue at 19.00 h.

ACCOMPANYING PERSONS PROGRAMME

Tickets have been sold in advance and on-site availability is not guaranteed.
Tours can be cancelled or subject to modification without prior notice, if the minimum number of participants (20 persons) is not met. In case of cancellation participants will be reimbursed.
Full day tours include lunch.
Tours depart from and return to the venue, Kursaal.
Tour guides speak English.
Cancellations must be notified to the Secretariat in writing. Full reimbursement before 1st August 2014. From 1st August on, no reimbursement is made.

SAN SEBASTIÁN WALKING TOUR (HALF-DAY)

This tour is included in the accompanying persons' fee
Monday 29 Sept., 09.00-13.00 h
Price: 30 € VAT included.

Discover why aristocrats and royal families chose 'Donostia' (San Sebastián) as their summer resort at the end of the XIXth Century. Get a fresh local visit to know about the secrets of the city. Get into a private Gastronomic Club, where locals meet friends around gastronomic lunches or dinners, visit the Central Market and enjoy a ham and cheese degustation. Taste a 'pintxo' with a local wine in one of the most popular local bars of the Old Town. Get to know lots of anecdotes to learn all the clues of our historical and lovely city.

BILBAO / GUGGENHEIM MUSEUM (FULL-DAY)

Tuesday 30 Sept., 09.30-17.30 h
Price: 105 € VAT included.

Feel the big transformation of one of the most important industrial cities in Europe into one of the biggest attractions of Spain. The visit are made by expert local guides and includes a panoramic view of the city, a visit of the Guggenheim Museum with an official guide, the visit of the old town with a walk along the river to discover the "New" and the "Old" Bilbao and lunch in a traditional restaurant in the Casco Viejo (old quarter). Also a visit to the World Heritage Hanging Bridge of Portugalete is part of the programme.

FRENCH BASQUE COUNTRY (HALF-DAY)

Wednesday 1 Oct., 09.00-14.00 h
Price: 50 € VAT included.

Enjoy with us a lovely tour discovering the French Basque Country, three counties in the south of France with strong historical and cultural links with Euskadi, the Spanish Basque Country. Discover the elegant town of Biarritz, holiday destination for the European aristocracy since the XIXth century with its impressive Hotel du Palais, the Casino, its prestigious boutiques and historical cafes and restaurants overlooking the bay and the lighthouse. Saint Jean de Luz, a very picturesque fishing town with the famous Gambetta Street, it's pretty and historical Church of San Jean Baptiste, a visit to the Central Market, if market day, is a nice way to understand the local gastronomy. A walk along the lovely Bay of Sokoa admiring the amazing scenery is a good way of saying goodbye to this charming town before to leave along the impressive "Corniche" over
the cliffs direction San Sebastián.

GETARIA / TXAKOLI (FULL-DAY)

Thursday 2 Oct., 09.30-17.30 h
Price: 115 € VAT included.

Let us guide you along our stunning coast on our way to Getaria where you will have fantastic views of all the coastline and the mountains. Pretty contrast between the Green and the Blue, the Mountains and the Cantabrian Sea. Once we get there, we will take you to the Balenciaga Museum where you will enjoy a visit of this stunning Fashion Museum. After this, we will take you to a Txakoli winery where you will enjoy a private visit and degustation of Txakoli (local white wine created with grapes growing in front of the sea) paired with some local products. After this visit you will enjoy a fantastic lunch based on fresh fish barbecued by the harbour accompanied by a bottle of Txakoli. To complete this nice experience we will guide you through the little streets of this cute fishing village before to continue the tour along the coast to Zumaia and finally return back to San Sebastián.

INVITED AND ORAL SESSIONS

MONDAY 29 SEPTEMBER

08.30-08.50
Opening ceremony | Room Auditorium
(Please be seated at 08.15 h.)

08.50-09.10
Opening lecture | Room Auditorium
European Commission fusion programme in the frame of energy
By András Siegler

09.10-11.40
I1 Invited Session 1 | Room Auditorium
Chairs: I1.1 and I1.2 : Joaquín Sánchez, Enrique Ascasíbar
I1.3 : Roberto Piovan, Claus-Peter Kasëmann

I1.1 09.10-09.50	Progress and planning of ITER	By Osamu Motojima
I1.2 09.50-10.30	Status and issues of the European contribution to ITER	By Henrik Bindslev
10:30-11:00	Coffee-break | Opening exhibition area	
I1.3 11.00-11.40	Experience with the commissioning of the superconducting Stellarator Wendelstein 7-X	By Stephan Bosch

11:40-12:20
O1A Oral session 1A | Room Auditorium
Chairs: Regina Knitter, Matthias Kolb

O1A.1 11:40-12:00	Development of Fusion Fuel Cycles: Large Deviation from Defense Program Systems	By James Klein
O1A.2 12:00-12:20	Finalization of the conceptual design of the auxiliary systems for the European Test Blankets	By Antonio Aiello

O1B Oral session 1B | Room Chamber Hall
Chairs: Paola Batistoni, Chiara Mistrangelo

O1B.1 11:40-12:00	Reducing tritium inventory in waste from fusion devices	By Jerome Pamela
O1B.2 12:00-12:20	Nuclear analysis of Chinese fusion engineering test reactor with water-cooled ceramic breeder blanket	By Songlin Liu

O1C Oral session 1C | Room 10
Chairs: Carlos Alejaldre, Dario Carloni

O1C.1 11:40-12:00	Overview of Fusion Nuclear Technology and Safety Research Activities in China	By Yican Wu
O1C.2 12:00-12:20	Fusion from the electric utilities perspective: Fusion Innovation industry Forum	By Jose Antonio Tagle

16:40-18:00

O2A Oral session 2A | Room Auditorium
Chairs: Silvano Tosti, Javier Dies

O2A.1 16:40-17:00	Conceptual design and analysis of the helium cooled solid breeder blanket for CFETR	By Hongli Chen
O2A.2 17:00-17:20	Considerations on the DEMO pellet fuelling system	By Peter Lang
O2A.3 17:20-17:40	Post irradiation characterization of titanium beryllide grades after high temperature irradiation up to 3000 appm He production in HIDOBE-01	By Sander Van Til
O2A.4 17:40-18:00	Permeation of hydrogen dissolved in Li-Pb under forced-convection flow through inconel tube for fusion reactor blanket loop	By Satoshi Fukada

O2B Oral session 2B | Room Chamber Hall
Chairs: Klaus Hesch, Irene Zammuto

O2B.1 16:40-17:00	Progress and Upgrade of KSTAR to Explore the Advanced Plasma Experiments	By Yeong-Kook Oh
O2B.2 17:00-17:20	National Spherical Torus Experiment Upgrade Fabrication and Assembly	By Ronald Strykowsky
O2B.3 17:20-17:40	Improved experiment on neutron streaming through JET Torus Hall penetrations	By Paola Batistoni
O2B.4 17:40-18:00	Optimization of the irradiation parameters of the DONES, alternative for the Early Neutron Source	By Fernando Mota

O2C Oral session 2C | Room 10
Chairs: Philippe Jacques Moreau, Remy Nouailletas

O2C.1 16:40-17:00	Lawson Criterion of the DEMO Fusion Power Plant	By Slavomir Entler
O2C.2 17:00-17:20	The Development of Safe High Current Operation in JET-ILW	By Fernanda Rimini
O2C.3 17:20-17:40	A Detailed Picture of Plasma-Control System Interactions and Resonant-Like Behaviour During ELM Cycles in the Joint European Torus	By Anthony Webster
O2C.4 17:40-18:00	The enhanced pellet centrifuge launcher at ASDEX upgrade: advanced operation and application as technology test facility for ITER and DEMO	By Bernhard Ploeckl

TUESDAY 30 SEPTEMBER

08.30-10.30
I2 Invited Session 2 | Room Auditorium
Chairs: Vincent Massaut, Keitaro Kondo

I2.1 08.30-09.10	The European roadmap to fusion electricity	By Francesco Romanelli
I2.2 09.10-09.50	Engineering challenges and development of the ITER Blanket System and Divertor	By Mario Merola
I2.3 09.50-10.30	Indian fusion technology programme	By Dhiraj Bora
10:30-11:00	Coffee-break	

16:40-18:00
O3A Oral session 3A | Room Auditorium
Chairs: Bruno Gonçalves, Andreas Krimmer

O3A.1 16:40-17:00	Development of ITER diagnostics: neutronic analysis and radiation hardness	By Konstantin Vukolov
O3A.2 17:00-17:20	Design and integration of lower ports for ITER diagnostic systems	By Natalia Casal Iglesias

O3A.3 17:20-17:40	Engineering and Installation Challenges for the ITER Magnetic Diagnostics Flux Loops	By Matthew Clough
O3A.4 17:40-18:00	Compendium of the experimental and design activities toward the manufacture of the in-vessel viewing system for ITER	By Carlo Neri

O3B Oral session 3B | Room Chamber Hall
Chairs: Christopher Ibbott, David Hancock

O3B.1 16:40-17:00	Material Erosion and Transport in JET with Metal Plasma-Facing Components: Impact on Fuel Inventory and Modification of Diagnostics Mirrors	By Marek Rubel
O3B.2 17:00-17:20	Development of a high heat-flux cooling element with potential application in a near-term fusion power plant divertor	By Jack Nicholas
O3B.3 17:20-17:40	Development of arc-discharge and plasma-sputtering methods for cleaning plasma-facing components of fusion reactors	By Antti Hakola
O3B.4 17:40-18:00	Improvements in electron beam monitoring and heat flux flatness at the JUDITH-2 facility	By Thomas Weber

O3C Oral session 3C | Room 10
Chairs: Walter Fietz, Paolo Bettini

O3C.1 16:40-17:00	Completion of the First Winding Pack for the JT-60SA TF Magnet System	By Antonio Cucchiaro
O3C.2 17:00-17:20	Superconducting magnets for big tokamaks	By Denis Ivanov
O3C.3 17:20-17:40	Electrical Design Of The Inverter System BUSSARD For ASDEX Upgrade Saddle Coils	By Markus Teschke
O3C.4 17:40-18:00	LTS and HTS High Current Conductor Development for DEMO	By Pierluigi Bruzzone

ITER INDUSTRIAL INFODAY PROGRAMME

TUESDAY 30 SEPTEMBER

08.30-10.30

Opening ceremony and invited lectures | Room 10

08:30-08:50	**Opening** • Joaquín Sánchez, Head of Fusion National Laboratory, CIEMAT • Osamu Motojima, IO General Director • Henrik Bindslev, F4E Director • Estíbaliz Hernáez, Basque Government Deputy Minister of Technology, Innovation and Competitiveness • Mª Luisa Castaño, General Direction of Innovation and Competitiveness, MINECO
08:50-09:05	**Status of the ITER project (IO)** • Osamu Motojima, IO General Director
09:05-09:20	**F4E Contribution current situation (F4E)** • Henrik Bindslev, F4E General Director
09:20-09:40	**ITER Nuclear Safety, Quality and Security (IO)** • Carlos Alejaldre, Head of Safety, Quality and Security Department
09:40-10:05	**Main on-going contracts and forthcoming opportunities. How to prepare a successful offer? (IO)** • Francoise Flament, Head of Procurement and Contracts Division
10:05-10:30	**Main on-going contracts and forthcoming opportunities (F4E)** • Jean-Marc Filhol, Head of ITER Department
10:30-11:00	Coffee break

11.00-12.30

Round table | Room Auditorium

11:00-12:15	**Technology Transfer and Collaboration Models between Labs and Industry** Chaired by Tony Donné, EUROfusion Programme Manager • Ansaldo Nucleare, Roberto Adinolfi, CEO • Elytt Energy, Aitor Echeandia, Director • F4E, Victor Saez, Group Leader, Market Policies, Analysis and Reporting • IO, Sergio Orlandi, ITER Project Department, Chief Engineer • ESA, Lluc Díaz, Technology Transfer Officer • W7-X, Stephan Bosch, Director W7-X Operations
12:15-12:30	Prize for Innovation Awarding Ceremony

13.45-16.00

Thematic workshops | Room 10

13:45-14:00	**How to prepare a successful offer? (F4E)** • Mehdi Daval, Business Intelligence
14:00-15:00	**Diagnostics & CODAC** Chaired by Sylvain Bremond, CEA/IRFM • F4E, Glenn Counsell, Diagnostics Project Leader • F4E, Filippo Sartori, CODAC Group • IO, Paul Thomas, CODAC, Heating and Diagnostics Directorate • CEA, Philippe Magaud, Equatorial V/IR Wide Angle Viewing System
15:00-16:00	**Heating and current drive systems** Chaired by Jean-Marie Noterdaeme, IPP • F4E, Tullio Bonicelli, Neutral Beam and EC PS Project Leader • F4E, Mario Cavinato, Antennas and Plasma Engineering • IO, Paul Thomas, CODAC, Heating and Diagnostics Directorate • KIT, Theo Scherer, Deputy Project Leader for ECHUL (Electron Cyclotron Heating Upper Launchers), CA Consortium

WEDNESDAY 1 OCTOBER

08.30-10.30
I3 Invited Session 3 | Room Auditorium
Chairs: Sylvain Brémond, Chiara Monti

I3.1 08.30-09.10	JET programme in support of ITER	By Lorne Horton
I3.2 09.10-09.50	MAST Upgrade - Construction Status	By Joe Milnes
I3.3 09.50-10.30	DEMO diagnostics and burn control	By Wolfgang Biel
10:30-11:00	Coffee-break	

THURSDAY 2 OCTOBER

08.30-10.30
I4 Invited Session 4 | Room Auditorium
Chairs: Jean-Marie Noterdaeme, Nathan Lemahieu

I4.1 08.30-09.10	IFMIF/EVEDA, the engineering design of IFMIF and prototypes construction under the engineering validation activities	By Juan Knaster
I4.2 09.10-09.50	Current status of the WEST Project	By Jerome Bucalossi
I4.3 09.50-10.30	The DEMO heating and current drive programme	By Minh Quang Tran
10:30-11:00	Coffee-break	

11:00-12:20
O4A Oral session 4A | Room Auditorium
Chairs: Ángel Ibarra, Shanliang Zheng

O4A.1 11:00-11:20	The European ITER Test Blanket Modules: Current status of fabrication technologies development and a way forward	By Milan Zmitko
O4A.2 11:20-11:40	Achieving Tolerable Relative Magnetic Permeability in Austenitic Stainless Steels	By James Foster
O4A.3 11:40-12:00	The start-up and observation of the Li target under high vacuum in the EVEDA Li test loop	By Hiroo Kondo
O4A.4 12:00-12:20	Long-term annealing of advanced lithium metatitanate breeder pebbles	By Matthias H. H. Kolb

O4B Oral session 4B | Room Chamber Hall
Chairs: Christian Linsmeier, Rosaria Villari

O4B.1 11:00-11:20	Design assessment of water-cooled divertor target concepts for the European DEMO	By Jeong-Ha You
O4B.2 11:20-11:40	Development of high temperature high flux divertor for fusion power reactor	By Satosni Konishi
O4B.3 11:40-12:00	Analysis and Optimization on In-vessel Inspection Robotic System for EAST	By Weijun Zhang
O4B.4 12:00-12:20	Integrated approach for hybrid CAD and mesh geometry based coupled multi-physics analyses	By Yuefeng Qiu

O4C Oral session 4C | Room 10
Chairs: Aparajita Mukherjee, Pierre Dumortier

O4C.1 11:00-11:20	Progress of High Power and Long Pulse ECRH System in EAST	By Xiaojie Wang
O4C.2 11:20-11:40	Status of the development of the EU 170 GHz /1 MW/CW Gyrotron	By Ioannis Pagonakis
O4C.3 11:40-12:00	ITER ion cyclotron H&CD system integration in ITER	By Bertrand Beaumont
O4C.4 12:00-12:20	Recent progress in R&D for long pulse and ultra-high voltage components for the ITER N-NBI	By Mieko Kashiwagi

16:40-18:00

O5A Oral session 5A | Room Auditorium
Chairs: Eric Hodgson, Inge Uytdenhouwen

O5A.1 16:40-17:00	Comparative study of helium effects on EUROFER and EU-ODS EUROFER by nanoindentation and TEM	By Marcelo Roldán Blanco
O5A.2 17:00-17:20	The RF RAFMS RUSFER-EK-181- Physical Properties	By Viacheslav Chernov
O5A.3 17:20-17:40	The SITE-SiCf/SiC composite: fabrication and properties	By Saša Novak
O5A.4 17:40-18:00	Fabrication of TBMs cooling structures demonstrators using additive manufacturing (AM) technology and AM+HIP	By Nerea Ordas

O5B Oral session 5B | Room Chamber Hall
Chairs: Olaf Neubauer, Daniel Iglesias

O5B.1 16:40-17:00	Overview of the ITER Hot Cell Complex	By Spencer Pitcher
O5B.2 17:00-17:20	Use of Virtual Reality for optimizing the life cycle of a Fusion component	By Delphine Keller
O5B.3 17:20-17:40	Development of Laser Beam Welding for the Lip Seal Configuration	By Ashish Yadav
O5B.4 17:40-18:00	Vacuum Tight Threaded Junctions (VTTJ): a new solution for reliable heterogeneous junctions in ITER	By Piero Agostinetti

O5C Oral session 5C | Room 10
Chairs: Didier Mazon, Ivan Maione

O5C.1 16:40-17:00	Optimisation of a Lower Hybrid Current Drive launcher for ITER	By Jorge H. C. M. Belo
O5C.2 17:00-17:20	Status of the R&D activities to the design of an ITER core CXRS diagnostic system	By Philippe Mertens
O5C.3 17:20-17:40	Data acquisition remote node powered over the communications optical fiber	By Antonio Batista
O5C.4 17:40-18:00	Technology readiness level assessment of neutron diagnostics for DEMO	By Steven Lilley

FRIDAY 3 OCTOBER

08.30-10.30
I5 Invited Session 5 | Room Auditorium
Chairs: Lorenzo Boccaccini, Alice Ying

I5.1 08.30-09.10	Status of JT-60SA construction	By Pietro Barabaschi
I5.2 09.10-09.50	Technologies for dual coolant breeding blankets	By David Rapisarda
I5.3 09.50-10.30	Neutronics experiments, radiation detectors and nuclear techniques. Development in the EU in support of the TBM design for ITER	By Maurizio Angelone
10:30-11:00	Coffee-break	

11.00-12.20
I6 Invited Session 6 | Room Auditorium
Chairs: Tom Todd, Yican Wu

I6.1 11.00-11.40	Integrated European Materials Programme for DEMO applications: Recent achievements and challenges	By Michael Rieth
I6.2 11.40-12.20	Safety of fusion power plants in view of fission regulations	By Robert Stieglitz

12.20-13.00
Closing ceremony | Room Auditorium
- Presentation of next SOFT
- Best poster awards
- Closing of the conference

POSTER SESSIONS

MONDAY 29 SEPTEMBER

Poster session 1: 14.20-16.00

Chair: Enrique Ascasíbar

P1.001 Topic A	Status of design study for CFETR Tokamak machine	By Yuntao Song
P1.002 Topic A	The development of multi-lithium ball injecting system driven by high pressure gas for disruption mitigation on EAST	By Huidong Zhuang
P1.003 Topic A	Mock-ups Qualification and Prototypes Manufacture for ITER Current Leads	By Tingzhi Zhou
P1.004 Topic A	Manufacture and test of the CTB&SBB thermal shield prototype for the ITER Magnet Feeder system	By Kun Lu
P1.005 Topic A	Study on the welding process of the CTB out box prototype of ITER	By Chen Liu
P1.006 Topic A	Design, Manufacture and Commissioning of the Final Test Cryostat System for the ITER Central Solenoid Modules	By Eckhard Theisen
P1.007 Topic A	Shielding Optimisation of the ITER ICH&CD Antenna for Shutdown Dose Rate	By Andrew Turner
P1.008 Topic A	Operational Experience of the JET Neutral Beam Actively Cooled Duct Liner and Implications for ITER Operations	By Ian Day
P1.009 Topic A	A new Disruption Mitigation System for deuterium – tritium operation at JET	By Uron Kruezi
P1.010 Topic A	Radiation levels in the ITER Tokamak Complex during and after Plasma Operation	By Zamir Ghani
P1.011 Topic A	On the study of catalytic membrane reactor for water detritiation: modeling approach	By Karine Liger
P1.012 Topic A	Status of the Cold Test Facility for the JT-60SA Tokamak Toroidal Field Coils	By Walid Abdel Maksoud
P1.013 Topic A	Construction of a Test Platform for Test Blanket Module (TBM) Systems integration and maintenance in ITER Port Cell #16	By Mathieu Reungoat

P1.014 Topic A	3D Printed fusion components concepts and validation	By Vicente Manuel Queral Mas
P1.016 Topic A	Status of the CNESM diagnostic for SPIDER	By Andrea Muraro
P1.017 Topic A	A roadmap to the realisation of fusion energy: mission for solutions on heat-exhaust systems	By Mikhail Turnyanskiy
P1.018 Topic A	A compact high power density tokamak power supply	By Billy Huang
P1.019 Topic B	Upgrade of ICRF heating system on EAST	By Gen Chen
P1.020 Topic B	Key Enabling Design Features of the ITER HNB Duct Liner	By Ben Chuilon
P1.021 Topic B	High Heat Flux Engineering for the Upgraded Neutral Beam Injection Systems of MAST Upgrade	By Fahim Dhalla
P1.022 Topic B	Preparation for the next JET tritum campaign: performance of the EP2 PINIs with grid gas delivery	By A. Sparkes
P1.023 Topic B	JET Neutral Beam Duct Optical Interlock	By Andrew Ash
P1.024 Topic B	The mechanical structure of the WEST Ion Cyclotron Resonant Heating Launchers	By Vulliez Karl
P1.025 Topic B	R&D Activities on RF Contacts for the ITER Ion Cyclotron Resonance Heating Launcher	By Julien Hillairet
P1.026 Topic B	Radio-Frequency electrical design of the WEST Long Pulse and Load-Resilient ICRH launchers	By Walid Helou
P1.027 Topic B	Evolution of the Tore Supra Lower Hybrid Current Drive System for WEST	By Lena Delpech
P1.028 Topic B	Validation on Test Bed of the Tore Supra Electron Cyclotron Launcher Upgrade	By Francis Bouquey
P1.029 Topic B	Commissioning of the 28 GHz ECRH power transmission line for the TJ-II stellarator	By José Martínez-Fernández
P1.030 Topic B	Design of the ITER NBI Passive Magnetic Shield	By Luis Ríos

P1.031 Topic B	Magnetic analysis of the Magnetic Field Reduction System of the ITER neutral beam injectors.	By Germán Barrera
P1.032 Topic B	Structural analysis of the Passive Magnetic Shield for the ITER Heating Neutral Beam Injector system	By Santiago Cabrera
P1.033 Topic B	Design of the ITER NBI Active Correction and Compensation Coils	By Javier Alonso
P1.034 Topic B	Loads due to Stray Microwave Radiation in ITER	By Johan W. Oosterbeek
P1.035 Topic C	From the conceptual design to the first mock-up of the new WEST plasma control system	By Remy Nouailletas
P1.036 Topic C	CREATE-NL+: a Robust Control-Oriented Free Boundary Dynamic Plasma Equilibrium Solver	By Massimiliano Mattei
P1.037 Topic C	Improvement of 2D plasma identification by preliminary treatment of 3D measurement	By Raffaele Martone
P1.038 Topic C	Effective Magnetic Field Computation in Tokamaks in Presence of Magnetic Materials	By Francesco Ledda
P1.039 Topic C	A data-based model for Thermal SHAx prediction in RFX mod	By Rita Sabrina Delogu
P1.040 Topic C	Integration of Simulink, MARTe and MDSplus for rapid development of real-time applications	By Gabriele Manduchi
P1.041 Topic C	A boundary integral method for eddy-current problems in fusion devices	By Paolo Bettini
P1.042 Topic C	Feasibility study of a local active correction system of magnetic field errors in RFX-mod	By Giuseppe Marchiori
P1.043 Topic C	Strategies for real-time actuator decoupling in closed-loop MHD control operations	By Leonardo Pigatto
P1.044 Topic C	Development of an ITER Prototype Disruption Mitigation Valve	By Guntram Czymek
P1.045 Topic D	The Remote Control System for EAST Tokamak	By Xiaoyang Sun

P1.046 Topic D	Design and realization of data Management System in technical diagnosis system of the EAST superconducting magnet system	By Jing Qian
P1.047 Topic D	Calculation of neutron hardness factors and gamma doses for the estimation of the radiation damage of the BES system of the EAST tokamak	By Gábor Náfrádi
P1.048 Topic D	Provenance metadata gathering and cataloguing of efit++ equilibrium code execution	By Ivan Lupelli
P1.049 Topic D	The JET Neutron Calibration 2013 and its Results	By D.B. Syme
P1.050 Topic D	RAMI approach as guidance for the design of the WEST machine protection system using IR thermography measurements	By Elise Delchambre-Demoncheaux
P1.051 Topic D	Enhanced Integrators for West Magnetic Diagnostics	By Pascal Spuig
P1.052 Topic D	Design of soft-X-ray tomographic system in WEST using GEM detectors	By Didier Mazon
P1.053 Topic D	Development of the ITER Continuous External Rogowski: from conceptual design to final design	By Philippe Moreau
P1.054 Topic D	The new calorimetric diagnostic of WEST and its applications	By Tristan Daudel
P1.055 Topic D	Mechanical design and thermo-hydraulic simulation of the infrared thermography diagnostic of the WEST tokamak	By Frédéric Micolon
P1.056 Topic D	The ITER Equatorial Visible/Infra-Red Wide Angle Viewing System : status of design and R&D	By Sophie Salasca
P1.057 Topic D	Feature selection for disruption prediction from scratch in JET by using genetic algorithms and probabilistic predictors	By Augusto Pereira
P1.058 Topic D	Data archiving system implementation in ITER's CODAC Core System	By Rodrigo Castro
P1.059 Topic D	Control and Data Acquisition for dual HIBP diagnostics in the TJ-II stellarator	By J.M. Barcala

P1.060 Topic D	Dual Heavy Ion Beam Probing in the TJ-II stellarator	By José Luis De Pablos
P1.061 Topic D	Boiling bubbles monitoring for the protection of the LIPAc beam-dump	By Beatriz Brañas
P1.062 Topic D	The upgraded Collective Thomson Scattering diagnostic of FTU	By William Bin
P1.063 Topic D	Requirements for tokamak remote operation: application to JT-60SA	By Paolo Innocente
P1.064 Topic D	3D, LTCC-type, High-Frequency Magnetic Sensors for the TCV Tokamak	By Duccio Testa
P1.065 Topic D	Advanced Remote Operation of the GOLEM Tokamak	By Vojtech Svoboda
P1.066 Topic D	The effect of the accuracy of toroidal field measurements on spatial consistency of kinetic profiles at JET	By Eva Belonohy
P1.067 Topic D	Thermal analysis for optimization of the optical duct of the ITER core CXRS diagnostics	By Sergey Grigoriev
P1.068 Topic D	Advanced Methods for Image Registration Applied to JET Videos	By Teddy Craciunescu
P1.069 Topic D	Real-time optical plasma boundary reconstruction for plasma position control at the TCV Tokamak	By Gillis Hommen
P1.070 Topic E	Calculating the 3D magnetic field of ITER for European TBM studies	By Simppa Äkäslompolo
P1.071 Topic E	Safety Analysis for CFETR superconducting magnet system	By Jinxing Zheng
P1.072 Topic E	Design of the CFETR CS model coil	By Xiaogang Liu
P1.073 Topic E	Thermal-hydraulic analysis of the Zig-Zag type HTS-CL heat exchanger	By Zhongwei Wang
P1.074 Topic E	Design and Analysis of the New Current Feeders for EAST Device	By Weibin Xi
P1.075 Topic E	Design, fabrication and electromagnetic analysis of EAST VS coils	By Zhaoliang Wang
P1.076 Topic E	Preliminary Study on Advanced Technology for Fusion Power Supply System	By Zhengzhi Liu

P1.077 Topic E	3D ANSYS Model of an Unmitigated Quench in ITER coils	By Antonio Lafuente
P1.078 Topic E	Implications of TF coil stress limits on power plant design using PROCESS	By James Morris
P1.079 Topic E	Thirty Year Operational Experience of the JET Flywheel Generators	By Daniel Rendell
P1.080 Topic E	Comparison of different current transducers used at JET within the range 5-100kA for plasma control and monitoring	By Robert Salmon
P1.081 Topic E	Starting the production of the CEA JT-60SA TF coils procurement	By Patrick Decool
P1.082 Topic E	Quench Simulations in ITER CS Magnet with SuperMagnet Code	By Sylvie Nicollet
P1.083 Topic E	Proposal of Experiments in HELIOS Facility for Assessment of Thermal Efficiency of ITER TF Coil Case Cooling Channels	By Benoit Lacroix
P1.084 Topic F	Erosion of beryllium under high transient plasma heat loads	By Georgyi Nikolaev
P1.085 Topic F	An Investigation of the Effectiveness of Pulsed Phase Thermography for Detection of Disbonds in HIP-Bonded Beryllium Tiles in ITER Normal Heat Flux First Wall (NHF FW) Components	By Joe Bushell
P1.086 Topic F	True surface temperature measurement on W PFC subjected to thermal fatigue loads in the FE200 facility	By Guillaume Ritz
P1.088 Topic F	The Upgrade of EAST Divertor	By Zibo Zhou
P1.089 Topic F	Engineering conceptual design of CFETR divertor	By Xuebing Peng
P1.090 Topic F	Application of E-Beam Welding in W/Cu Divertor Project for EAST	By Wanjing Wang
P1.091 Topic F	Electromagnetic and thermal analysis for blanket model of fusion reactor	By Sumei Liu
P1.092 Topic F	Testing candidate interlayers for an enhanced water-cooled divertor target	By David Hancock

P1.093 Topic F	Enhancing the DEMO Divertor Target by Interlayer Engineering	By Thomas Barrett
P1.094 Topic F	The WEST project: Qualification programme for the ITER divertor tungsten plasma facing component technology	By Marc Missirlian
P1.095 Topic F	Design and Manufacturing of WEST Baffle	By Tristan Batal
P1.096 Topic F	Heat flux depositions on the WEST divertor and first wall components	By Mehdi Firdaouss
P1.097 Topic F	Leak tightness tests on actively cooled plasma facing components: lessons learned from Tore Supra experience and perspectives for the new fusion machines	By Michel Chantant
P1.098 Topic F	Plasma Facing Components integration studies for the WEST divertor	By Fabien Ferlay
P1.099 Topic F	Tungsten coating developments on large size and complex geometries CuCrZr elements for the WEST project	By Caroline Hernandez
P1.100 Topic F	Status of the WEST actively cooled upper divertor	By Marianne Richou
P1.101 Topic F	Optimization of the First Wall for the DEMO Water Cooled Lithium Lead Blanket	By Julien Aubert
P1.102 Topic F	In-pile testing of ITER first wall mock-ups at relevant thermal loading conditions in LVR-15 research reactor	By Jan Kysela
P1.103 Topic F	Computational Thermal Fluid Dynamic Analysis of Hypervapotron Heat Sink For High Heat Flux Devices Application	By Phani Kumar Domalapally
P1.104 Topic F	The high-heat-flux test facilities in the Efremov institute	By Vladimir Kuznetcov
P1.105 Topic G	Upgrade of EAST In-vessel Components	By Damao Yao
P1.106 Topic G	Concept design of the CFETR divertor remote handling system	By Wenlong Zhao
P1.107 Topic G	Thermal Testing of the ITER Diagnostic Cable Loom	By András Bendefy

P1.108 Topic G	Progress on DEMO Blanket Attachment Concept with Keys and Pins	By Zsolt Vizvary
P1.109 Topic G	The 'ductility exhaustion' method for static strength assessment of fusion structures	By Vaughan Thompson
P1.110 Topic G	Remote Handling assessment of attachment concepts for DEMO blanket segments	By Daniel Iglesias
P1.111 Topic G	Application of virtual reality tools for assembly of WEST components: Comparison between simulations and physical mockups	By Arnaud Pilia
P1.112 Topic G	Major upgrade of the Articulated Inspection Arm control system to fullfill daily operation requirements	By Patrick Pastor
P1.113 Topic G	The portable metrology on tore supra for the design & assembly optimization of the west components	By Cyril Brun
P1.114 Topic G	Manufacturing monitoring and mock-ups validation of the WEST divertor structure and coils	By Louis Doceul
P1.115 Topic G	Design of WEST divertor coils	By Sebastien Larroque
P1.117 Topic G	Progress on the design of a brazing connector for DEMO in-vessel components	By Iván Fernández
P1.118 Topic G	Innovative design for FAST divertor compatible with remote handling, electromagnetic and mechanical analyses	By Giuseppe Di Gironimo
P1.119 Topic G	Artificial Landmark based Localization of Tokamak Transfer Cask System	By Yuan Yu
P1.120 Topic G	Validation of the remote handling refurbishment process for the European IFMIF Target Assembly concept design	By Gioacchino Micciché
P1.121 Topic G	Nuclear Analysis of the ITER Cryopump Ports	By Fabio Moro
P1.122 Topic G	Nuclear Analysis of ITER Test Blanket Module Port Plug	By Rosaria Villari
P1.123 Topic G	IVVS probe mechanical concept design	By Paolo Rossi

P1.124 Topic G	Initial demo Tokamak design configuration	By Christian Bachmann
P1.125 Topic G	Methodology to derive the basic DEMO tokamak configuration CAD geometry from system code studies	By Botond Meszaros
P1.126 Topic G	Remote handling of material samples and conditioning in a plasma generator operated in a hot cell	By Lothar Scheibl
P1.127 Topic G	Global shutdown dose rate maps for a DEMO conceptual design	By Dieter Leichtle
P1.128 Topic H	Considerations on Electrical Properties of Liquid Hydrogen and Deuterium	By Bogdan-Florian Monea
P1.129 Topic H	Study on New-Type Oxidation Catalysts for Tritium Recovery System	By Ayano Nakamura
P1.131 Topic H	Neutronics analysis of water-cooled ceramic breeder blanket for CFETR	By Yong Pu
P1.132 Topic H	Evaluation on the heat removal capacity of first wall of water-cooled blanket for CFETR	By Kecheng Jiang
P1.133 Topic H	Structural design and stress analysis of water-cooled ceramic breeder blanket for CFETR	By Xuebin Ma
P1.134 Topic H	Study of impacts on tritium self-sufficiency in a fusion DEMO reactor	By Shanliang Zheng
P1.135 Topic H	Benchmarking of Monte Carlo tools for nuclear analyses of the European DEMO	By Jean-Charles Jaboulay
P1.136 Topic H	Module Attachment for DEMO Helium Cooled Blankets	By Giacomo Aiello
P1.138 Topic H	The design of closed loop regeneration system for molecular sieve dryer in detritiation system	By Yong Yao
P1.139 Topic H	Hydrogen extraction characteristics of a high-temperature proton conductor for tritium monitoring in fusion fuel cycle and breeding blankets	By Tirui Xia
P1.140 Topic H	Conceptual Study on Transmutation Reactor Based on Tokamak Neutron Source	By Bong Guen Hong

P1.142 Topic H	Thermally induced outdiffusion studies of deuterium in ceramic breeder blanket materials after radiation	By Elisabetta Carella
P1.143 Topic H	Preliminary RAMI analysis of DEMO WCLL blanket and breeder systems	By José Manuel Arroyo
P1.145 Topic H	Modelling tritium release data from LIBRETTO-4/-5 neutron irradiation experiments	By Paloma Castro
P1.146 Topic H	Development of an HCLL-TBM Configuration and Ancillary Systems Dynamic Transfer Model using EcosimPro®	By Jenifer Serna
P1.147 Topic H	Model improvements for tritium transport in DEMO Fuel Cycle	By Silvano Tosti
P1.148 Topic H	Experimental validation of water gas shift and isotopic swamping reactions for highly tritiated water decontamination via Pd-membrane reactor	By Alessia Santucci
P1.149 Topic H	Electro-Magnetic Analysis of the European Test Blanket Modules for ITER	By Pietro Testoni
P1.150 Topic H	Detailed Design of the ITER Torus Cryopumps Cold Valve Boxes	By Francina Canadell
P1.151 Topic H	Tritium permeation in the presence of hydrogen	By Paul Humrickhouse
P1.152 Topic I	Features of structural-phase states and mechanical properties of vanadium alloys subject to thermomechanical treatment modes	By Mikhail Potapenko
P1.153 Topic I	Tritium release behavior from neutron irradiated beryllium	By Igor Kupriyanov
P1.154 Topic I	Hydrogen uptake from plasma and its effect on EUROFER 97 and ODS-EUROFER steels at elevated temperatures	By Evgenii Malitckii
P1.155 Topic I	Laser welding with hot wire technology applied on the austenitic stainless steel of ITER Correction Coil Case	By Chao Fang
P1.156 Topic I	Elaboration and thermomechanical characterization of W/Cu functionally graded materials produced by Spark Plasma Sintering for plasma facing components	By Emmanuel Autissier

P1.157 Topic I	Manufacturing of self-passivating tungsten based alloys by different powder metallurgical routes	By Aida Calvo
P1.158 Topic I	Microstructural characterization of ODS ferritic steels at different processing stages	By Emma Gil
P1.159 Topic I	Advanced Examination Techniques applied to the Qualification of Critical Welds for the ITER Correction Coils	By Stefano Sgobba
P1.160 Topic I	Extensive characterisation of advanced manufacturing solutions for the ITER central solenoid pre-compression system	By Stefanie Agnes Elisabeth Langeslag
P1.161 Topic I	Displacement damage effect on the radiation induced deuterium absorption for different types of SiC	By Alejandro Moroño
P1.162 Topic I	Radiation induced deuterium absorption dependence on irradiation temperature, dose rate, and gas pressure for SiC	By Eric R. Hodgson
P1.163 Topic I	Oxidation recovery of radiation induced surface damage in aluminas: luminescence qualification	By Marta Malo
P1.164 Topic I	Structural changes induced in silica by ion irradiation observed by IR reflectance spectroscopy	By Piedad Martín
P1.165 Topic I	Fusion Material Irradiation Experiments under Magnetic Field Conditions	By Isabel Garcia-Cortés
P1.166 Topic I	Short-range order effects on ion irradiated Fe-Cr and its impact on resistivity properties of RAFM alloys.	By Begoña Gómez-Ferrer
P1.167 Topiic I	Recrystallization kinetics of pure tungsten warm-rolled to different strains during annealing in the temperature range 1150 °C to 1350 °C	By Ángel Alfonso López
P1.168 Topic I	Small-angle neutron scattering (SANS) characterization of 13.5 Cr oxide dispersion strengthened ferritic/martensitic steel for fusion applications	By Roberto Coppola
P1.169 Topic I	Pre-analysis of the Copper Neutronics Benchmark experiment for nuclear data validation	By Davide Flammini

P1.170 Topic I	Rami assessment for IFMIF lithium facility	By Tonio Pinna
P1.171 Topic I	Experimental set up for irradiation of fusion materials in ESS-Bilbao	By Estefanía Abad
P1.172 Topic I	Analysis of gaps in the steels database for EUROFER as structural material for DEMO	By Sehila María González De Vicente
P1.173 Topic I	HIP-Welding tests for the molybdenum 1st mirror of CXRS-Spectroscopy	By Michael Schrader
P1.174 Topic I	Creep irradiation testing of copper alloy for the ITER First Wall Panels	By Christoph Pohl
P1.176 Topic I	The design of the Conventional Facilities of IFMIF	By Giuseppe Pruneri
P1.177 Topic J	RAMI analysis program design and research for CFETR (Chinese Fusion Engineering Testing Reactor) Tokamak Machine	By Shijun Qin
P1.178 Topic J	Shutdown Dose Rate Analysis During Maintenance Scenarios of the Neutral Beam Injectors	By Tim Eade
P1.179 Topic J	The Resilience of an Operating Point for a Fusion Power Plant	By David Ward
P1.180 Topic J	Development and application of a secondary surface source mesh routine in MCNP6 and its application to fusion-relevant radiological field mapping	By Jonathan Naish
P1.181 Topic J	The Conceptual design of WDS in CFETR	By Qian Xiaojing
P1.183 Topic J	RAMI Analysis for DEMO HCPB blanket concept cooling system	By Danilo Nicola Dongiovanni
P1.184 Topic J	Revisiting the analysis of passive plasma shutdown during an ex-vessel loss of coolant accident in ITER blanket	By Javier Dies
P1.185 Topic J	Status of the EU Test Blanket Systems Safety Studies	By Dobromir Panayotov

P1.186 Topic J	Concept Design Analyses of an ITER Radwaste System Pipeline	By Da-Hyun Lim
P1.187 Topic J	Overvoltage Protection for Magnetic Systems during Disruption in Tokamak	By Xialong Li
P1.188 Topic J	Update of the MELCOR calculations for the validation of the ITER Cryostat design	By Emili Martínez

TUESDAY 30 SEPTEMBER

Poster session 2: 14.20-16.00

Chair: Silvano Tosti

P2.001 Topic A	Manufacturing, assembly and tests of SPIDER Vacuum Vessel to develop and test a prototype of ITER Neutral Beam Ion Source	By Pierluigi Zaccaria
P2.002 Topic A	The Earthing System of the PRIMA Neutral Beam Test Facility based on the Mesh Common Bonding Network Topology	By Nicola Pomaro
P2.003 Topic A	The SPIDER Cooling Plant from design to realization	By Matteo Zaupa
P2.004 Topic A	Design and radiation protection aspects for the PRIMA Cooling Plant	By Francesco Fellin
P2.005 Topic A	Manufacturing of the full size prototype of the ion source for the ITER neutral beam injector. The spider beam source	By Mauro Pavei
P2.006 Topic A	Plant integration of MITICA and SPIDER experiments with auxiliary plants and buildings on PRIMA site	By Andrea Rizzolo
P2.008 Topic A	Design Optimization and Performances of New Sorgentina Fusion Source (NSFS) Supporting Materials Research	By Patrizio Console Camprini
P2.009 Topic A	Steady state thermomechanical analysis of the IFMIF lithium target system with bayonet backplate under design conditions	By Davide Bernardi
P2.010 Topic A	RFX radiological analysis and testing for improved tokamak and deuterium operation mode	By Angela Coniglio
P2.011 Topic A	Study of the response of a piezoceramic motor irradiated in a fast reactor up to a neutron fluence of 2.77E1017 n/cm^2.	By Mario Pillon
P2.012 Topic A	Physical program and conceptual design of the diagnostics of the T-15 upgrade Tokamak	By Alexander Melnikov
P2.013 Topic A	Disruption studies and simulations for the development of the DEMO Physics Basis	By Giuseppe Ramogida

P2.014 Topic A	Experiments with heated elongated plasmas with the actively water cooled liquid lithium limiter in view of the development of X-point magnetic configurations on FTU	By Aldo Pizzuto
P2.015 Topic A	Mirror station for studies of the protection of diagnostic mirrors from impurity contamination in ITER: design and first results	By Andrey Litnovsky
P2.016 Topic A	Computational Fluid Dynamics Analysis of the Gaseous Helium Discharge into the Storage Vessel following JT-60SA superconductive Coil Fast Discharge	By Antonino Cardella
P2.017 Topic A	The Engineering Design Evolution of IFMIF: from CDR to EDA Phase	By Mario Pérez López
P2.018 Topic B	A high frequency, high power CARM proposal for the DEMO ECRH system	By Francesco Mirizzi
P2.019 Topic B	Magnetic and thermo-structural design optimization of the Plasma Grid for the MITICA Neutral Beam Injector	By Nicolò Marconato
P2.020 Topic B	Electrical and structural R&D activities on high voltage DC solid insulators in vacuum	By Nicola Pilan
P2.021 Topic B	The 100kV Faraday cage (High Voltage Deck) for the SPIDER experiment	By Marco Boldrin
P2.022 Topic B	Control, Protection and Breakdown Management in the Acceleration Grid Power Supply of the ITER Heating Neutral Beam Injector	By Loris Zanotto
P2.023 Topic B	Design, manufacture and factory testing of the Ion Source and Extraction Power Supplies for the SPIDER experiment	By Andrea Zamengo
P2.024 Topic B	Design and R&D for manufacturing the Beamline Components for MITICA and ITER HNB	By Mauro Dalla Palma
P2.026 Topic B	Control and Data Acquisition of the ITER Full-scale Ion Source for the Neutral Beam Test Facility	By Adriano Luchetta
P2.027 Topic B	Upgrade of the TCV tokamak, first phase: neutral beam heating system	By Alexander N. Karpushov
P2.028 Topic B	Upgrade of a 30 kV/10 mA anode power supply for triode type gyrotron	By Ugo Siravo

P2.029 Topic B	Supply equipment to the new NBH system for the TCV tokamak	By Damien Fasel
P2.030 Topic B	Prototyping and tests of ITER ECH waveguide components for the first confinement system	By Robert Bertizzolo
P2.031 Topic B	In-situ upgrade of the TCV vacuum vessel with tangential ports for the neutral beam plasma heating system	By Matthieu Toussaint
P2.032 Topic B	Design of the first confinment system for the ITER upper launcher ECH antennas	By Jean-Daniel Landis
P2.033 Topic B	User requirements and conceptual design of the ITER Electron Cyclotron Control System.	By Mario Cavinato
P2.034 Topic C	An adaptive disruption predictor based on FDI approach for next generation Tokamaks	By Alessandro Pau
P2.035 Topic C	Three-dimensional electromagnetic analysis of JT-60SA conducting structures in view of RWM control	By Stefano Mastrostefano
P2.036 Topic C	Improving the performance of the JET Shape Controller	By Francesco Maviglia
P2.037 Topic C	From Use Cases of the Joint European Torus towards Integrated Commissioning Requirements of the ITER Tokamak	By Filippo Sartori
P2.038 Topic C	The ITER plasma control system simulation platform	By Michael Walker
P2.040 Topic C	Design and commissioning of controller for power supplies for vertical position control on the COMPASS tokamak	By Ondrej Mikulin
P2.041 Topic C	Plasma density real-time control for the compass tokamak	By Filip Janky
P2.042 Topic C	Implementation Strategy for the ITER Plasma Control System	By Axel Winter
P2.043 Topic D	Digital nuclear radiation spectroscopy: Hardware requirements to minimize energy resolution degradation	By Marco Riva
P2.044 Topic D	Triple modulation radar electronics with improved phase disambiguity	By Fabio Pollastrone

P2.045 Topic D	Control and data acquisition system with multiple configurations for tests in nuclear facilities	By Chiara Monti
P2.046 Topic D	First results on runaway electron studies using the FTU neutron camera	By Daniele Marocco
P2.047 Topic D	Double pulse Laser Induced Breakdown Spectroscopy measurements on ITER-like samples	By Salvatore Almaviva
P2.048 Topic D	Diagnostic Setup for Investigation of Plasma Wall Interactions at Wendelstein 7-X	By Olaf Neubauer
P2.049 Topic D	Design overview of the ITER core CXRS fast shutter and manufacturing implications during the detailed design work	By David Antonio Castaño Bardawil
P2.050 Topic D	Dynamic performance of frictionless fast shutters for ITER: numerical and analytical sensitivity study for the development of a test program	By Anatoly Panin
P2.051 Topic D	Major aspects of the design of a first mirror for the ITER core CXRS diagnostics	By Yury Krasikov
P2.052 Topic D	Aim and features of the simplified parametric mock-up of a fast shutter developed for ITER optical diagnostics	By Sebastian Friese
P2.053 Topic D	Testing of SiO2 / TiO2 coating on a stainless steel substrate under ITER in-port conditions	By Andreas Krimmer
P2.054 Topic D	Development of radiation hard quartz microbalance for fusion devices	By Gennady Sergienko
P2.055 Topic D	Laser cleaning of mirror surface for optical diagnostic systems of the International Thermonuclear Experimental Reactor	By Oleg Buzhinskij
P2.056 Topic D	Conceptual Plant System Controller Architecture for ITER Magnetics Diagnostic	By André Neto
P2.057 Topic D	An Improved Model for the optImal Measurement Probes Allocation Tool	By Claudio Sterle
P2.058 Topic D	Simulation study on Doppler shift spectroscopy for neutral beam injection	By Yuan Chi

P2.059 Topic D	The information management within the Linear IFMIF Prototype Accelerator (LIPAc) commissioning	By Alvaro Marqueta
P2.060 Topic D	Design of data acquisition and control system for Indian test facility of diagnostics neutral beam	By Jignesh Soni
P2.061 Topic D	Diagnostics of plasma rotation using high-resolution spectroscopy on the COMPASS tokamak	By Vladimir Weinzettl
P2.062 Topic D	Soft X-ray tomographic reconstruction of JET ILW plasmas with tungsten impurity and different spectral response of detectors	By Jan Mlynar
P2.063 Topic D	Investigation of metal Hall sensors for local magnetic field measurements at fusion reactors	By Martin
P2.064 Topic D	Li-BES detection system for plasma turbulence measurements on the COMPASS tokamak	By Pavel Hacek
P2.065 Topic D	Validation of equilibrium tools on the COMPASS tokamak	By Jakub Urban
P2.066 Topic D	Millimetre wave attenuation of prototype diagnostic components for the ITER bolometers	By Hans Meister
P2.067 Topic D	Integrated thermal fe analyses and testing of prototype components for the ITER bolometer diagnostic	By Harald Langer
P2.068 Topic E	Impact of error fields on equilibrium configurations in ITER	By Alessandro Formisano
P2.069 Topic E	Reference design of the Power Supply system for the Resistive-Wall-Mode control in JT-60SA	By Alberto Ferro
P2.070 Topic E	Improvement of the dynamic response of the ITER Reactive Power Compensation system	By Claudio Finotti
P2.071 Topic E	Improvements of the RFX-mod power supply system for MHD mode control	By Mauro Recchia
P2.072 Topic E	Analyses of the impact of connections layout on the coil transient voltage at the Quench Protection Circuit intervention in JT-60SA	By Alberto Maistrello
P2.073 Topic E	Twin box ITER joints under electromagnetic transient loads	By Stepanov Boris

P2.074 Topic E	Soldered Lap Joints between REBCO Coated Conductors for Demountable Fusion Magnets	By Yeekin Tsui
P2.075 Topic E	Numerical study for optimization of the air cooling system for the Fast Discharge Resistors protecting the ITER magnets	By Victor Tanchuk
P2.076 Topic E	Conceptual Design of Pulsed High Voltage and High Precision Power Supply for Plasma Heating by a Cyclotron Auto-Resonance Maser (CARM)	By Pietro Zito
P2.077 Topic E	Design and realization of JT-60SA Fast Plasma Position Control Power Supplies	By Ander Dorronsoro
P2.078 Topic E	First Switching Network Unit for the JT-60SA superconducting Central Solenoid	By Alessandro Lampasi
P2.079 Topic E	Validation of special processes for the manufacturing of the first JT-60SA TF coil	By Gian Mario Polli
P2.080 Topic E	The design and achievement of the double-fed system for the 100MVA motor generator of J-TEXT	By Guozhong Jiang
P2.081 Topic E	R&D on High-Power DC Reactor Prototype for ITER Poloidal Field Converter	By Li Chuan
P2.082 Topic F	Tungsten coating for fusion plasma facing component development by thermal plasma spraying method	By Se Youn Moon
P2.083 Topic F	Characterization of Arc-Heated Plasma for Study of Plasma Material Interaction in Fusion Reactor Conditions	By Min Ho Kim
P2.084 Topic F	HRP facility for fabrication of ITER vertical target divertor full scale plasma facing units	By Eliseo Visca
P2.085 Topic F	Study of dynamic amplification factor of DEMO blanket caused by a gap at the supporting key.	By Paolo Frosi
P2.086 Topic F	Design Optimization of the DEMO ITER-like water-cooled divertor	By Fabio Crescenzi
P2.087 Topic F	Study of tile size effect on the thermal-mechanical performance of ITER beryllium first wall mock-up	By Juan Du

P2.088 Topic F	Characterization of ITER tungsten and CFC qualification mock-ups exposed to high cyclic thermal loads	By Gerald Pintsuk
P2.089 Topic F	Impact on Tungsten of Transient Heat Loads on top of steady state Plasma Exposure	By Alexander Huber
P2.091 Topic F	High Heat Flux testing of Tungsten Monoblock Mock-ups for the ITER Divertor	By Pierre Gavila
P2.092 Topic F	High heat flux testing of ITER Normal Heat Flux First Wall (NHF FW) Mock-ups with calibrated defects	By Boris Bellin
P2.093 Topic F	Progress in the design of Normal Heat Flux First Wall panels for ITER	By Tindaro Cicero
P2.094 Topic F	Manufacturing and testing of a ITER First Wall semiprototype for EUDA pre-qualification	By Stefano Banetta
P2.095 Topic F	Geometry Sensitivity of Magnetohydrodynamic Flow with Flow Channel Insert Studied by Numerical Simulation	By Jie Mao
P2.096 Topic F	Fabrication of a semi-prototype of a Normal Heat Flux First Wall Panel for ITER	By Leticia Ruiz
P2.097 Topic F	Preliminary numerical simulation of buoyancy effects of mhd flow for SLL-TBM	By Zi Meng
P2.098 Topic F	New design aspects of cooling scheme for SST-1 plasma facing components	By Yuvakiran Paravastu
P2.099 Topic F	Development of laser induced breakdown spectroscopy for studying erosion, deposition, and fuel retention in ASDEX Upgrade	By Matti Laan
P2.100 Topic F	Retention behaviour of deuterium in beryllium under single D+ and dual He+/D+ exposure	By Rodrigo Mateus
P2.101 Topic F	Status of the beryllium tile bonding qualification activities for the manufacturing of the ITER first wall	By Raphael Mitteau
P2.102 Topic F	Development of Residual Thermal Stress-Relieving Structure of CFC Monoblock Target for JT-60SA Divertor	By Daigo Tsuru

P2.103 Topic F	Progress of ITER Full Tungsten divertor technology qualification in JAEA	By K. Ezato
P2.104 Topic G	Measuring robustness of maintenance schedules in Fusion Remote Handling	By Pepijn Schoen
P2.105 Topic G	Mapping ITER Port Plug maintenance workflow	By Dennis Ronden
P2.106 Topic G	Design assessment of triangular support bracket for manufacturability	By Yu-Gyeong Kim
P2.107 Topic G	CFD meshing methodology for large computational domains applied to an irregular sector of the ITER vaccum vessel.	By Clara Colomer
P2.108 Topic G	New portable machine for the in-situ inspection, repair and manufacturing of complex features in remote locations within the vacuum vessel of ITER.	By Josu Eguia
P2.109 Topic G	Human-Robot Interface architecture for a Multi Purpose Rescue Vehicle for remote assistance in ITER	By Rodrigo Ventura
P2.110 Topic G	Assessment of ex-vessel movers in Remote Maintenance Systems of DEMO	By Alberto Vale
P2.111 Topic G	Assessment and performance optimization of the ITER plasma position reflectometry in-vessel oversized waveguide bends	By Emanuel Ricardo
P2.112 Topic G	Performance assessment of the iter plasma position reflectometry in-vessel antenna setup	By Hugo Hugon
P2.113 Topic G	A large scale divertor manipulator for ASDEX Upgrade	By Albrecht Herrmann
P2.114 Topic G	Fabrication Feasibility Study on Copper Cladding in Tokamak System	By Gwang-Ho Kim
P2.115 Topic G	Comparative evaluation of Remote Maintenance Schemes for Fusion DEMO Reactor	By Hiroyasu Utoh
P2.116 Topic G	Development of remote pipe welding tool for divertor cassettes in JT-60SA	By Takao Hayashi

P2.117 Topic G	Laser welding development to expand allowable gap in bore welding for ITER Blanket hydraulic connection	By Hisashi Tanigawa
P2.118 Topic G	Welding technology on sector assembly of the jt-60sa vacuum vessel	By Yusuke Shibama
P2.119 Topic G	Safety Analysis of LOCA Accidental for the DEMO Blanket	By Qinlan Kang
P2.120 Topic G	Design validation of the ITER EC Upper Launcher according to codes and standards	By Peter Spaeh
P2.121 Topic G	Advancement in HCPB DEMO Blanket design	By Dario Carloni
P2.122 Topic G	Optimization of V-Shaped one-side-Ribbed Channel for Helium Cooled DEMO First-Wall	By Yuming Chen
P2.123 Topic G	Modelling and Shielding Analysis of the Neutral Beam Injector Ports in ITER	By Pavel Pereslavtsev
P2.124 Topic G	Creep fatigue assesment macro in MAPDL for EUROFER	By Furkan Özkan
P2.125 Topic G	Development of a zonal applicability tool for remote handling equipment in demo	By Vladimir Madzharov
P2.126 Topic G	Integration and calibration of H-alpha and visible spectroscopy diagnostic for ITER	By Nancy Ageorges
P2.127 Topic H	A coupled systems code - cfd mhd solver for fusion blanket design	By Michael Wolfendale
P2.128 Topic H	Re-Assessment of Tritium Self-Sufficiency for Fusion Reactor by Dynamic Model	By Muyi Ni
P2.129 Topic H	Analysis on the Testing Results of MHD Effect and Related Measuring Accuracy in DRAGON-IV PbLi Loop	By Zhiqiang Zhu
P2.130 Topic H	Simulations of Effect of Off-Normal Events on LLCB TBM First Wall	By Paritosh Chaudhuri
P2.131 Topic H	Blower Gun pellet injection system for W7-X	By Mathias Dibon
P2.132 Topic H	Preparation of Acceptance Tests and Criteria for the Test Blanket Systems to be operated in ITER	By Jaap G. van der Laan

P2.133 Topic H	Development of the ITER roughing pumping system	By Robert Pearce
P2.134 Topic H	Progress of Design and Fabrication Technology Development of ITER Test Blanket Module of Water Cooled Ceramic Breeder Blanket in JAEA	By Mikio Enoeda
P2.135 Topic H	Upgrade in catalytic activity of hydrophobic platinum catalysts by irradiation with electron beams	By Yasunori Iwai
P2.136 Topic H	Fabrication and hydrogen generation reaction with water vapor of prototypic pebbles of binary beryllides as advanced neutron multiplier	By Masaru Nakamichi
P2.137 Topic H	Integral Test of International Reactor Dosimetry and Fusion File on Graphite Assembly with DT Neutron at JAEA/FNS	By Masayuki Ohta
P2.138 Topic H	Effect of beryllium contents in titanium beryllide pebbles on crush strength and oxidation resistance	By Jae-Hwan Kim
P2.139 Topic H	Experimental Investigation on Tritium Recovery from Lithium Titanate Pebble under high temperature of 1073K	By Kentaro Ochiai
P2.140 Topic H	Optimization of Granulation Conditions of Advanced Tritium Breeder Pebbles using the Emulsion Method	By Tsuyoshi Hoshino
P2.141 Topic H	Improvement of CAD/MCNP conversion system GEOMIT	By Satoshi Sato
P2.142 Topic H	R&D activities of tritium technologies on Broader Approach in Phase 2-2	By Kanetsugu Isobe
P2.143 Topic H	Design study of blanket structure based on a water-cooled solid breeder for DEMO	By Youji Someya
P2.144 Topic H	Development of fabrication procedure for Korean HCCR TBM sub-module using ARAA	By Jae Sung Yoon
P2.145 Topic H	Design and construction of a helium cooling system for the HCCR TBM	By Eo Hwak Lee
P2.146 Topic H	Integrated Design and Performance Analysis of the KO HCCR TBM for ITER	By Dong Won Lee

P2.147 Topic H	Internal advection mechanism of a falling liquid Pb-17Li droplet for hydrogen isotopes recovery	By Fumito Okino
P2.148 Topic H	A system dynamics model for stock and flow of tritium in fusion power plant	By Ryuta Kasada
P2.149 Topic H	Lithium desorption capacity from Li2TiO3 and Li4SiO4	By Motoki Shimozori
P2.150 Topic H	Influence of Li mass loss on tritium behavior in Li2TiO3 with excess Li	By Kazunari Katayama
P2.151 Topic I	Certification of contact probe measurement of surface wave of Li jet for IFMIF	By Takafumi Okita
P2.152 Topic I	Irradiation hardening in pure tungsten before and after recrystallization	By Zhexian Zhang
P2.153 Topic I	Development of iron-base composite materials with high thermal conductivity	By Naoyuki Hashimoto
P2.155 Topic I	Development Status and Strategy of China Liquid PbLi Blanket in China	By Qunying Huang
P2.156 Topic I	Effect of tantalum on the creep rupture properties of clam steel at 823 K	By Chunjing Li
P2.157 Topic I	Microstructure and Mechanical Properties of TIG Welded Joint of CLAM and 316L Steels	By Junyu Zhang
P2.158 Topic I	Fabrication of 1/3 Size CN DFLL-TBM Components with Embedded Cooling Channels	By Yutao Zhai
P2.159 Topic I	Processing and Properties of Tungsten-Steel Composites and FGMs Prepared by Spark Plasma Sintering	By Jiri Matejicek
P2.160 Topic I	Microstructure and mechanical properties of heat-resistant ferritic-martensitic 12% Cr steels	By Nadezhda Polekhina
P2.161 Topic I	Oxidation behaviour of neutron irradiated Be pebbles	By Norberto Catarino
P2.162 Topic I	TA interdiffusion in W-based composites consolidated by spark plasma sintering	By Marta Dias
P2.163 Topic I	W-Taf composite materials for nuclear fusion applications	By Eduardo Alves

P2.164 Topic I	Towards the demonstration of industrial production capacity of Spanish ASTURFER ®Ferritic-Martensitic steel at ITER-scale demands	By Rubén Coto
P2.165 Topic I	Overview of the fusion engineering activities toward DEMO at Rokkasho	By Takeo Nishitani
P2.166 Topic I	Physical properties of SiC and SiC/SiC composites toward DEMO application	By Takashi Nozawa
P2.167 Topic I	Mechanical properties of TIG and EB weld joints of F82H	By Takanori Hirose
P2.168 Topic I	Measurement of Li-target thickness in the EVEDA Li Test Loop	By Takuji Kanemura
P2.169 Topic I	Mechanical properties of the F82H melted in an electric arc furnace	By Hideo Sakasegawa
P2.170 Topic I	Estimation of the lifetime of resin-insulators against baking temperature for JT-60SA In-vessel coils	By Atsuhiko Sukegawa
P2.171 Topic I	Modification of vaccum plasma sprayed tungsten coating on F82H by friction stir processing	By Hiroyasu Tanigawa
P2.172 Topic I	Impacts of friction stir processing on irradiation effects in vacuum-plasma-spray coated tungsten and its substrate F82H	By Kazumi Ozawa
P2.173 Topic I	Small Specimen Test Technique and the fusion DEMO strucutral interity evaluation on brittle-ductile transition behavior of RAF/M steels	By Eiichi Wakai
P2.174 Topic I	Characterization of JET neutron field for material activation and radiation damage studies	By Igor Lengar
P2.175 Topic I	Effects of Sc addition on the mechanical properties of RAFM steel	By Young-Bum Chun
P2.176 Topic J	TSTA Piping and Flame Arrestor Operating Experience Data	By Lee Cadwallader
P2.177 Topic J	Modeling an unmitigated thermal quench event in a large field magnet and its busbar	By Brad Merrill
P2.178 Topic J	Development of Virtual Reality-Based Simulation System for Nuclear and Radiation Safety and Its Application	By Tao He

P2.179 Topic J	Neutronics modeling of blankets for ITER c-lite based on mcam	By Shengpeng Yu
P2.180 Topic J	3D Visual post-processing for nuclear analysis based on RVIS	By Shaoheng Zhou
P2.181 Topic J	First experimental results of particle re-suspension in a low pressure wind tunnel applied to the issue of dust in fusion reactors	By Anthony Rondeau
P2.182 Topic J	Characterization of tungsten particles in AUG tokamak which are potentially mobilizable by airflow	By Samuel Peillon
P2.183 Topic J	Stellarator-Specific Developments for the Systems Code PROCESS	By Felix Warmer
P2.184 Topic J	Water and air ingress accident transients in fusion facility ITER: Source term analysis	By François Virot
P2.185 Topic J	Chemical reaction of lithium with atmosphere containing variable humidity at room temperature	By Tomohiro Furukawa
P2.186 Topic J	Design study for DEMO concept definition	By Kenji Tobita
P2.187 Topic J	Analyses of iron and concrete shielding experiments at JAEA/ TIARA with JENDL/HE-2007, ENDF/B-VII.1 and FENDL-3.0	By Chikara Konno
P2.188 Topic J	Dynamic Modelling of Balance of Plant Systems for aPulsed DEMO Power Plant	By Chris Harrington
P2.189 Topic J	The Monte Carlo approach to the economics of a DEMO-like power plant.	By Chiara Bustreo

WEDNESDAY 1 OCTOBER
Poster session 3: 11.00-12.20
Chair: Ángel Ibarra

P3.001 Topic A	Comparison of Particle Image Velocimetry Flow Data inside HyperVapotrons with Computational Fluid Dynamics	By A. Sergis
P3.002 Topic A	Design and Testing of Electromagnetic Pump in PREKY-I Facility	By Xiaolong Li
P3.003 Topic A	Installation and Commissioning of the Negative Ion Optimization Experiment	By Michela De Muri
P3.004 Topic A	Development of 3D ferromagnetic model of tokamak core with strong toroidal asymmetry	By Tomas Markovic
P3.005 Topic A	Status and perspectives of the ASDEX Upgrade gas inlet system	By Thomas Härtl
P3.006 Topic A	Continuity and Enhancement of Quality Management during commissioning of W7-X	By Reinhard Vilbrandt
P3.007 Topic A	Features and Analyses of W7-X Cryostat System FE Model	By Paul Van Eeten
P3.008 Topic A	Status of the ITER Vacuum Vessel Construction	By Chang-Ho Choi
P3.009 Topic A	Optimisation of CAD methodology for the final design of complex vacuum system components	By Florin Lucian Chitu
P3.010 Topic A	Overview of the ITER Tokamak Complex Building & Integration of Plant Systems towards Construction	By Jean-Jacques Cordier
P3.011 Topic A	The Design of HFTM of IFMIF	By Michiyoshi Yamamoto
P3.012 Topic A	In-Pile Lithium-Lead Loop	By Victor Kovalenko
P3.013 Topic A	Overview on ITER and DEMO relevant blanket fabrication activities of the KIT INR and related frameworks	By Heiko Neuberger
P3.014 Topic A	IFMIF-test facilities: functional analysis and improvement of hot cells	By Martin Mittwollen

P3.015 Topic A	Study of wettability of Eurofer steel by the liquid metal sodium-potassium (NaK-78)	By Ali Abou-Sena
P3.016 Topic A	Experimental activities at the TUD-NG 14 MeV neutron generator facility in support of the European fusion technology program	By Axel Klix
P3.017 Topic A	Conceptual Design Study of the K-DEMO Magnet System	By Keeman Kim
P3.018 Topic A	System analysis of the requirements to the IGNITOR tokamak site location	By Mikhail Subbotin
P3.019 Topic B	Final Design And Test Results Of A High Voltage Amplifier For A Gyrotron Body Power Supply	By Joseph Tooker
P3.020 Topic B	Modeling and experimental studies of the DIII-D neutral beam system	By Brendan Crowley
P3.021 Topic B	Research of inverter type high voltage power supply with duty cycle modulation for neutral beam injector	By Linglong Xia
P3.022 Topic B	A PXI controller for PSM high-voltage power supply on J-TEXT	By Shaoxiang Ma
P3.023 Topic B	Development of a high power wideband polarizer for electron cyclotron current drive system in JT-60SA	By Mikio Saigusa
P3.024 Topic B	Progress in Negative Ion Source, ROBIN, operation at IPR	By Gourab Bansal
P3.025 Topic B	Technological and Physics Assessments on Heating and Current Drive Systems for DEMO	By Thomas Franke
P3.026 Topic B	Progress in the ITER Electron Cyclotron Heating & Current Drive System Design	By Toshimichi Omori
P3.027 Topic B	Status of R&D Activity for ITER ICRF Power Source System	By Aparajita Mukherjee
P3.028 Topic B	Design of Vacuum Vessel for Indian Test Facility (INTF) for 100KV Neutral Beams	By Jaydeep Joshi
P3.029 Topic B	Design modification of ITER equatorial EC launcher for electron cyclotron heating anc current drive optimization	By Koji Takahashi

P3.030 Topic B	Experiments of High-Power Multi-Frequency Gyrotron and Long Dsitance Transmission	By Ryosuke Ikeda
P3.031 Topic B	Mechanical and quasi-optical design of ECH/ECCD launcher for JT-60SA	By Takayuki Kobayashi
P3.032 Topic B	22 A production of uniform negative ion beams in the JT-60 negative ion source	By Masafumi Yoshida
P3.033 Topic B	Gyrotron Development at KIT: FULGOR Test Facility and Gyrotron Concepts for DEMO	By Martin Schmid
P3.034 Topic B	ITER ECRH Upper Launcher Torus Diamond Window – Prototyping, Testing and Qualification	By Sabine Schreck
P3.036 Topic C	Actuator management for ECRH at ASDEX Upgrade	By Christopher Rapson
P3.037 Topic C	The asdex upgrade parameter server	By Gregor Neu
P3.038 Topic C	Transforming the ASDEX Upgrade Discharge Control System to a General-Purpose Plasma Control Platform	By Wolfgang Treutterer
P3.039 Topic C	Model predictive control of plasma current and shape for ITER	By Samo Gerksic
P3.040 Topic C	Impact of subdivertor gas dynamics on particle recirculation in a tokamak divertor	By Cristian Gleason González
P3.041 Topic C	Simulation of MGI efficiency for plasma energy conversion into Ar radiation in JET and implications for ITER	By Serguei Pestchanyi
P3.042 Topic C	Development of high performance control system by decentralization with reflective memory on QUEST	By Makoto Hasegawa
P3.043 Topic C	Implementation of a new Disruption Mitigation System into the Control System of JET	By Stefan Jachmich
P3.044 Topic C	Feedback Control of Plasma Density and Heating Power for Steady State Operation in LHD	By Shuji Kamio
P3.045 Topic D	First assessment of microwave diagnostics for DEMO	By Antonio Silva

P3.046 Topic D	FPGA real-time spectrum code for gamma-ray spectroscopy diagnostics	By Ana Fernandes
P3.047 Topic D	ATCA Shelf Manager EPICS Device Support for ITER CODAC Core System	By Bruno Santos
P3.048 Topic D	ATCA/MTCA Data Acquisition System for Advanced Fusion Experiments	By Rita C.Pereira
P3.049 Topic D	Precision time protocol syncization support hardware for iter tcn compliancy	By Miguel Correia
P3.050 Topic D	PCI Express Hotplug Implementation for ATCA-based ITER Fast Plant System Controller	By Paulo Carvalho
P3.051 Topic D	Phase modulated ADC module for long term numerical integration of magnetic signals	By Bernardo Carvalho
P3.052 Topic D	Progress on Diagnostics Integration in ITER Equatorial Ports #11 and #17	By Jean-Marc Drevon
P3.053 Topic D	Maturity Assessment of ITER Diagnostics Plant Instrumentation and Control Design	By Stefan Simrock
P3.054 Topic D	Design and development activities for in-vessel and in-port components of ITER microwave diagnostics	By Antoine Sirinelli
P3.055 Topic D	Final Design of the Generic Equatorial Port Plug Structure for ITER diagnostic systems	By Victor Udintsev
P3.056 Topic D	Performance of the ITER interlocks slow architecture prototype	By Juan Luis Fernández Hernando
P3.057 Topic D	An Overview of the ITER Cabling Network and Cable Database Management	By Jashwant Sonara
P3.058 Topic D	ITER In-Vessel Viewing System engineering analysis	By Roger Reichle
P3.059 Topic D	Development of instrumentation and control systems for the ITER diagnostic systems in JADA	By Tsuyoshi Yamamoto
P3.060 Topic D	Development of magnetic sensors for JT-60SA	By Manabu Takechi

P3.061 Topic D	Neutronic Analysis for Detail Desing of Optical System of the Edge Thomsong Scattering System for ITER	By Masao Ishikawa
P3.062 Topic D	The EFDA Goal Oriented Training Program GOT-4 Diagnostic Techniques	By Francesco Mazzocchi
P3.063 Topic D	Neutronics analysis for ITER cable looms	By Arkady Serikov
P3.064 Topic D	Experimental results and validation of a method to reconstruct forces on the ITER Test Blanket Modules	By Christian Zeile
P3.065 Topic D	Design and qualification of a MGy tolerant front-end chip in 65 nm CMOS for the read-out of remotely operated sensors and actuators during maintenance in ITER	By Ying Cao
P3.066 Topic D	Mobile robot for the inspecting in vacuum vessel of ITER	By Huapeng Wu
P3.067 Topic D	Polarimetry data inversion in conditions of tokamak plasma: model based tomography concept	By Janusz Chrzanowski
P3.068 Topic D	Polarization properties of a corner-cube retroreflector	By Bohdan Bieg
P3.069 Topic E	Present status of the new Power Supply Systems of JT-60SA procured by EU	By Luca Novello
P3.070 Topic E	Progress of the Engineering Analyses for the JT-60SA Toroidal Field Coils Structures	By Valerio Tomarchio
P3.071 Topic E	EU ITER TF Coil: Dimensional metrology, a key player in the Double Pancake integration.	By Lionel Poncet
P3.072 Topic E	ITER central solenoid module fabrication program	By John Smith
P3.073 Topic E	Feasibility testing of Hybrid DC Circuit breaker for Prototype Superconducting Magnet	By Swati Roy
P3.074 Topic E	Operation of SST-1 TF power supply during SST-1 Campaigns	By Dinesh Kumar Sharma
P3.075 Topic E	Assessment of instrumentation of the magnet system of W7-X	By Joris Fellinger
P3.076 Topic E	New Drive Converter and Digital Control for the Pulsed Power Supply System of ASDEX Upgrade	By Claus-Peter Käsemann

P3.077 Topic E	Control system and DC-link supply of the inverter system BUSSARD for ASDEX Upgrade in vessel saddle coils	By Nils Arden
P3.078 Topic E	Electrical and mechanical adaptation of commercially available power inverter modules for BUSSARD - the power supply of ASDEX Upgrade in vessel saddle coils	By Michael Rott
P3.079 Topic E	Requirements for qualification of manufacture of the ITER Central Solenoid and Correction Coils	By Paul Libeyre
P3.080 Topic E	Manufacturing design and development of the current feeders and coil terminal boxes for JT-60SA	By Kaname Kizu
P3.081 Topic E	In-vessel coils for magnetic error field correction in JT-60SA	By Go Matsunaga
P3.082 Topic E	Accurate 3D modeling of Cable in Conduit Conductor type superconductors by X-ray microtomography	By Ion Tiseanu
P3.083 Topic F	Development activities of the High Heat Flux Scraper Element	By Jean Boscary
P3.084 Topic F	Conceptual design of the W7-X in vessel port protection for steady state operation	By Reinhold J. Stadler
P3.085 Topic F	Water-cooling system of the W7-X plasma facing components	By Boris Mendelevitch
P3.086 Topic F	Mechanical examination and analysis of W7-X divertor module sub-structures.	By Michael Smirnow
P3.087 Topic F	Experience gained from the 3D machining of the HHF divertor target elements	By Patrick Junghanns
P3.088 Topic F	Results of high heat flux testing of W/CuCrZr multilayer composites with percolating microstructure for plasma-facing components	By Henri Greuner
P3.089 Topic F	Final tests and structural analysis of the new Solid Tungsten Divertor Tile for ASDEX Upgrade	By Nikola Jaksic
P3.090 Topic F	Plasma-wall interactions with nitrogen-seeding in all-metal fusion devices: formation of beryllium nitride and ammonia	By Martin Oberkofler

P3.091 Topic F	Long term Project in ASDEX Upgrade: implementation of ferritic steel as in vessel wall	By Irene Zammuto
P3.092 Topic F	Efficiency of water coolant for DEMO PFC	By Renate Fetzer
P3.093 Topic F	Mechanical testing of joints processed by electro-plating technology for brazing of divertor components	By Wolfgang Krauss
P3.094 Topic F	Basic considerations on the pump-down time in the dwell phase of a pulsed fusion DEMO	By Katharina Battes
P3.095 Topic F	Magnetohydrodynamic flows in model porous structures	By Leo Bühler
P3.096 Topic F	SIRHEX - a new experimental facility for high heat flux testing of plasma facing components	By André Kunze
P3.097 Topic F	Modeling and Optimization of graded tungsten/EUROFER97 coating system for First Wall components	By Dandan Qu
P3.098 Topic F	Results of first wall manufacturing at KIT	By Axel Von Der Weth
P3.099 Topic F	Comparison of EM loads acting on DEMO blankets under possible design-driven electrical connections	By Ivan Alessio Maione
P3.100 Topic F	Fabrication and integrity test of the HIP joined W/FMS mock-ups for developing the Korean DEMO PFC	By Kyu In Shin
P3.101 Topic F	Heat Load Test for the Plasma Facing Components by using KoHLT-EB facility	By Suk-Kwon Kim
P3.102 Topic F	Evaluation of thermal structural behavior of divertor under ELM	By Hyoseong Gwon
P3.103 Topic F	Hydrogen gas driven permeation through tungsten deposition layer formed by hydrogen plasma sputtering	By Hiroyuki Date
P3.104 Topic F	Surface modification of tungsten materials by repeated high heat loading	By Kazutoshi Tokunaga
P3.105 Topic G	Progress in the ITER TBM port plug design	By Byoung Yoon Kim

P3.106 Topic G	Novell manufacturing method by using stainless steel pipes expanded into aluminium profiles for the ITER neutral beam cryopumps	By Matthias Dremel
P3.107 Topic G	Distribution of the In-Vessel Diagnostics in ITER Tokamak	By Jorge R. González Teodoro
P3.108 Topic G	ITER Lip Seal Welding and Cutting Developments	By Bruno Levesy
P3.109 Topic G	ITER design features serving for suppression of eddy currents and electromagnetic loads	By Sergey Sadakov
P3.110 Topic G	Multi-Purpose Deployer for ITER In-Vessel Maintenance	By Chang-Hwan Choi
P3.111 Topic G	First boundary electrical feedthroughs for the Heating Neutral Beams injectors of ITER	By Etienne Delmas
P3.112 Topic G	Structural Damages Prevention of the ITER Vacuum Vessel and Ports by elasto-plastic analysis with regards to RCC-MR	By Jean-Marc Martinez
P3.113 Topic G	Diagnostic integration issues in the ITER Blanket First Wall	By Gonzalo Martínez
P3.114 Topic G	The choice of Dynamic Amplification Factors DAF's for the ITER Generic Port Plugs during disruptions	By Christian Vacas
P3.115 Topic G	Starting manufacturing phase of the ITER upper ports	By Yury Utin
P3.116 Topic G	Integration of remote refurbishment performed on ITER components	By Alexis Dammann
P3.117 Topic G	Engineering constraints due to the ESP/ESPN regulation applied to the Port Plug Structure and Diagnostic First Wall for ITER Diagnostic system	By Thibaud Giacomin
P3.118 Topic G	Neutronic analysis of the Diagnostic Equatorial Ports in ITER	By Alejandro Suárez
P3.119 Topic G	Alignment of in-vessel components by metrology defined adaptive machining	By David Wilson
P3.120 Topic G	Summary of electromagnetic analyses for the final design of the iter blanket modules	By Riccardo Roccella

P3.121 Topic G	Completion of the System Integration of the ITER In Vessel Components	By Alex Martin
P3.122 Topic G	Status and Challenges in the Design for Remote Handling Compatibility of ITER DNB Components	By Roopesh Gangadharan Nair
P3.123 Topic G	Conceptual design of an optical shutter for H-alpha and visible spectroscopy diagnostic for ITER	By Amir Mottaghibonab
P3.124 Topic G	Impact of thermo-mechanical loads on the optical performance of EP11TV channel of H-alpha and visible spectroscopy diagnostic for ITER	By Thomas Ernst
P3.125 Topic G	Software protocol design: communication and control in a multi-task robot machine for ITER vacuum vessel assembly and maintenance	By Ming Li
P3.127 Topic G	Preliminary electromagnetic, thermal and mechanical design for fw and vv of fast	By Flavio Lucca
P3.128 Topic H	Pebble bed structures in the vicinity of concave and convex walls	By Joerg Reimann
P3.129 Topic H	On the implementation of new technology models for fusion reactors systems codes	By Fabrizio Franza
P3.130 Topic H	Thermo-mechanical screening tests to qualify beryllium pebble beds with non-spherical pebbles	By Simone Pupeschi
P3.131 Topic H	ITER divertor flow modelling	By Volker Hauer
P3.132 Topic H	Magnetohydrodynamic flow in ducts with discontinuous electrical insulation	By Chiara Mistrangelo
P3.133 Topic H	Experimental study of instabilities in magnetohydrodynamic boundary layers	By Victor Chowdhury
P3.134 Topic H	Hot extrusion of Be-Ti powder	By Petr Kurinskiy
P3.135 Topic H	Tritium and helium release from highly neutron irradiated titanium beryllide	By Vladimir Chakin
P3.136 Topic H	Single stage recycling of tritium breeder pebbles by remelting	By Oliver Leys

P3.137 Topic H	Activities for the calibration of the TRIMO++ software in view of simulation of the ITER WDS-ISS configuration	By Ion Cristescu
P3.138 Topic H	Experimental study of permeation and selectivity of different inorganic membranes for tritium processes	By Olga Borisevich
P3.139 Topic H	Experimental characterisation of random packing materials for cryogenic hydrogen isotope separation	By Stefan Welte
P3.140 Topic H	Experimental study at large flow rate of a technical scale catalytic membrane reactor for its potential use for tritium processing in the breeding blanket	By Nando Gramlich
P3.142 Topic H	Manufacturing pre-qualification of a Short Breeder Unit mockup (SHOBU) as part of the roadmap towards the out-of-pile validation of a full scale Helium Cooled Pebble Bed Breeder Unit	By Francisco A. Hernández González
P3.143 Topic H	Spreading behavior of distributions of hydrogen isotopes adsorbed in zeolite packed bed at 77.4 K	By Kenji Kotoh
P3.144 Topic H	Dual temperature dual pressure water-hydrogen chemical exchange for water detritiation	By Takahiko Sugiyama
P3.145 Topic H	Pre-conceptual Design Study on K-DEMO Ceramic Breeder Blanket	By JongSung Park
P3.146 Topic H	Electromagnetic analysis on Korean Helium Cooled Ceramic Reflector(HCCR) TBM during plasma major disruption	By Youngmin Lee
P3.147 Topic H	Preliminary failure modes and effects analysis on Korean Helium Cooled Ceramic Reflector TBS to be tested in ITER	By Mu-Young Ahn
P3.148 Topic H	Experimental evaluation for fuel delivery in the ITER Tritium Plant	By Min Ho Chang
P3.149 Topic H	Feasibility study of fusion breeding blanket concept employing graphite reflector	By Seungyon Cho
P3.150 Topic H	Hydrogen solublity in FLiNaK mixed with metal powder	By Juro Yagi

P3.151 Topic H	Calculation code 'TC-FNS' for a DT fuel cycle of a steady-state fusion reactor	By Sergey Ananyev
P3.152 Topic I	Rapid material development and processing of complex shaped parts via tungsten powder injection molding	By Steffen Antusch
P3.153 Topic I	Consolidation process studies for Ferritic ODS steels	By Lorelei Commin
P3.154 Topic I	Needs and gaps in the development of aluminum-based corrosion and T-permeation barriers for DEMO blankets	By Sven-Erik Wulf
P3.155 Topic I	Shieling design optimization for the IFMIF test facility based on high-fidelity Monte Carlo neutronic analyses	By Keitaro Kondo
P3.156 Topic I	Determination of RAFM steel properties at high temperatures by instrumented indentation	By Julian Bredl
P3.157 Topic I	Comparative assessment of different approaches for the use of CAD geometry in Monte Carlo transport calculations	By Bastian Weinhorst
P3.158 Topic I	Microstructural anisotropy of ferritic ODS alloys after different production routes	By Jan Hoffmann
P3.159 Topic I	Tensile Behavior of EUROFER ODS Steel after Neutron Irradiation up to 16.3 dpa between 250 and 450 °C	By Edeltraud Materna-Morris
P3.160 Topic I	Low temperature mechanical properties of soft solders for superconducting applications	By Nadezda Bagrets
P3.161 Topic I	Overview of IFMIF EVEDA Test Facility Design	By Kuo Tian
P3.162 Topic I	Friction stir welding, a possible method to join reduced activation structural materials like eurofer and eurofer-ods steels?	By Rainer Lindau
P3.163 Topic I	LES Simulation for Forced Convective Heat Transfer in Ribbed Square Duct for DEMO First Wall	By Christine Klein
P3.164 Topic I	Microstructure evolution and impact toughness in the weld heat-affected zone of a reduced activation 9Cr-2W-VTa ferritic/martensitic steel	By Joonoh Moon

P3.165 Topic I	Effect of Ti on Microstructures and Mechanical Properties of 9Cr-1WVTa Reduced Activation Ferritic-Martensitic Steels	By Chang-Hoon Lee
P3.166 Topic I	Effect of strain rate on nanoindentation hardness of reduced-activation ferritic steel after ion-irradiation	By Daiki Ishii
P3.167 Topic I	Microstructure characteristics of dissimilar friction stir welded joint of ODS ferritic steel and RAF/M steel F82H	By Wentuo Han
P3.168 Topic I	Annealing effect on irradiation hardening of 15Cr-ferritic ODS steels under ion-beam irradiation environment	By Yoosung Ha
P3.169 Topic I	Correlation of microstructure characteristics and mechanical properties of high-Cr ferritic ODS steels and SUS430 stainless steel during 475ºC thermal aging	By Dongsheng Chen
P3.170 Topic I	Thermal properties of tungsten-F82H steel joint formed by underwater explosive welding	By Ryosuke Ochiai
P3.171 Topic I	Stress corrosion cracking of structural materials in supercritical water dissolved with hydrogen	By Hwanil Je
P3.172 Topic I	Investigation of chemical state and distribution of Li in Pb-Li ingots using SXES and rf-GD-OES	By Cheng Kai
P3.173 Topic I	Tensile properties of F82H steel after aging at 673 to 923 K for 100 kh	By Takuya Nagasaka
P3.174 Topic I	Hydrogen Isotope Permeation through Structural Materials of a Fusion Reactor	By Alexander Spitsyn
P3.175 Topic I	Laser refrection measurement on liquid lithium flow surface flow	By Sachiko Yoshihashi
P3.176 Topic I	Modeling radiation damage in tungsten for fusion plasma facing applications	By Richard Kurtz
P3.177 Topic J	Beryllium oxidation model implemantation for the gamma-fr code	By Hyung Gon Jin
P3.178 Topic J	Neutronics Requirements for a DEMO Fusion Power Plant	By Ulrich Fischer

P3.179 Topic J	Preliminary safety studies for the DEMO HCPB blanket concept	By Xue Zhou Jin
P3.180 Topic J	Application of the R2Smesh approach for the accurate estimation of photon radiation dose fields around activated iter components	By Haibo Liu
P3.181 Topic J	Dose rate analysis for the diagnostic generic equatorial port plug in the port plug test facility	By Alexander Romannikov
P3.182 Topic J	Evaluation of tritium transport in the biomass-fusion hybrid system and its environmental impact	By Kyosuke Namba
P3.183 Topic J	Parametric Stress Analyses for a Piping of ITER subjected to Seismic Displacements	By Yoon-Suk Chang
P3.184 Topic J	Status of Safety Studies and Code Developments towards Korean Fusion DEMO Plant	By Gyunyoung Heo
P3.185 Topic J	Safety studies on Korean fusion DEMO plant using integrated safety assessment methodology: Part 2	By Kyemin Oh
P3.186 Topic J	Argon generation in fusion reactor materials	By Vladimir Khripunov
P3.187 Topic J	Development and application of the activation and decay database for corrosion products simulation of fusion reactor	By Wen Song
P3.188 Topic J	Design Basis Accident Analysis for the Ignitor Experiment	By Massimo Zucchetti

THURSDAY 2 OCTOBER

Poster session 4: 14.20-16.00

Chair: Bruno Gonçalves

P4.002 Topic B	Energy balance of He3 lunar mining for fuelling advanced-plasma fusion reactors	By Darío Cruz
P4.003 Topic A	Method to measure the composition of H-D-T mixtures employing capacitive sensors	By Mirela Draghia
P4.004 Topic A	Plasma Start-up Design and First Ohmic Experiment in VEST	By YoungHwa An
P4.005 Topic A	Conceptual study on design parameters of fusion DEMO based on spherical torus	By Ji-Sung Kang
P4.006 Topic A	Initial operation of the pulsed electron source for helicity injection in Versatile Experiment Spherical Torus at Seoul National University	By JongYoon Park
P4.007 Topic A	Feasibility Study for the Heat Flux Control of ELM-like Plasma Jet Generated by a Pulsed Plasmsa Gun with Transient Electric Field	By Chung Kyoungsoo
P4.008 Topic A	Reserch on Localization and Allignment Technology for Transfer Cask	By Jingchuan Wang
P4.009 Topic A	Structural Analysis on the ITER Gas Distribution System Manifolds	By Chengzhi Cao
P4.010 Topic A	Assembly study for HL-2M Tokamak	By Dequan Liu
P4.011 Topic A	The component development status of HL-2M tokamak	By Qiang Li
P4.012 Topic A	Progress towards Compact Fusion Energy	By Alan Sykes
P4.013 Topic A	Neutronics in support of the bioshield plug design of Equatorial Port 12 for ITER	By Juan Pablo Catalán
P4.014 Topic A	RELAP5-3D©pre-test analysis in support of HE-FUS3 experimental campaign	By Gianluca Barone
P4.016 Topic A	Detailed 3-D Nuclear Analysis of ITER Blanket Modules	By Tim Bohm

P4.017 Topic A	Mechanical and thermal considerations for the jet li-beam ion source upgrade	By Gábor Bodnár
P4.018 Topic B	Study of a new concept of ICRH antenna by modelling and experiments	By Andre Messiaen
P4.019 Topic B	Tridimensional Modeling & Numerical Optimization of the W7-X ICRH Antenna	By Fabrice Louche
P4.020 Topic B	Validation of the electrical design of the W7-X ICRF antenna on a reduced-scale mock-up	By Pierre Dumortier
P4.021 Topic B	Compact Toroid Challenge experimental device at the P.N. Lebedev Physical Institute	By Sergei Ryzhkov
P4.022 Topic B	Method of measurement of neutral beam profile in the long-pulse powerful injectors	By Alexander Panasenkov
P4.023 Topic B	Long Pulse Performance and Plan of Neutral Beam Injector in KSTAR	By Young-Soon Bae
P4.024 Topic B	RF conditioning test and simulations on a Vacuum Feedthrough for high-power ICRF operation at KSTAR	By Son Jong Wang
P4.025 Topic B	RF design and tests on a broadband, high-power coaxial quadrature hybrid applicable to ITER ICRF transmission line system for load-resilient operations	By Haejin Kim
P4.026 Topic B	Status and progress of KSTAR LHCD system upgrade	By Jeehyun Kim
P4.027 Topic B	Power Supply System for KSTAR Neutral Beam Injector	By Wook Cho
P4.028 Topic B	Field-Aligned-Impedance-Transforming ICRF antenna for LHD	By Kenji Saito
P4.029 Topic B	Numerical investigation of sub-cooled flow boiling effects in the collector of a 1MW ITER gyrotron operated with vertical sweeping	By Roberto Zanino
P4.030 Topic B	Development of a high-current ion source with slit beam extraction for neutral beam injector of VEST (Versatile Experiment Spherical Torus)	By Bong-Ki Jung
P4.031 Topic B	Progress of the 2MW/3.7GHz/2s LHW system on HL-2A	By Hao Zeng

P4.032 Topic B	Development of a hydrogen negative ion source by sheet plasma	By Takaaki Iijima
P4.033 Topic B	Design of a Remote Steering Antenna for ECRH Heating of the Stellarator Wendelstein 7-X	By Burkhard Plaum
P4.034 Topic C	Advanced Magnetic Divertor Control on DIII-D	By Egemen Kolemen
P4.035 Topic C	Divertor plasma shape reconstruction from two kinds of magnetic sensors and eddy current effect on QUEST	By Kazuo Nakamura
P4.036 Topic C	Study on K-DEMO steady-state operation scenario and system code devleopment	By Yong-Su Na
P4.037 Topic C	Design of Discharge Waveform on HL-2M	By Jia Xian Li
P4.038 Topic C	Scenario Development of First Plasma for HL-2M	By Xiao Song
P4.039 Topic C	The Design and Development of Big Control System for HL-2A/HL-2M	By Fan Xia
P4.040 Topic C	The analyzation of a new disruption mitigation method based on ETC in J-TEXT	By Jun Zhang
P4.041 Topic C	Improvements in Disruption Prediction at ASDEX Upgrade	By Giuliana Sias
P4.042 Topic C	A novel approach for solving three dimensional eddy current problems in fusion devices	By Ruben Specogna
P4.043 Topic C	Table-top pelletinjector (TATOP) for impurity pellet injection	By Tamás Szepesi
P4.044 Topic D	Cyclic data processing approach for long-pulse massive data analysis in real time	By Woongryol Lee
P4.045 Topic D	New development of epics based data acquisition system for H-Alpha diagnostic.	By Taegu Lee
P4.046 Topic D	Breadboarding and thermal testing of the first mirror unit for H-alpha and visible spectroscopy in ITER	By Ilya Orlovskiy
P4.047 Topic D	Thermal deformation analysis of the first mirror unit for tangential-view EP12 channel of H-alpha and visible spectroscopy in ITER	By Andrey Alekseev

P4.048 Topic D	The science and technology in the design of the ITER Diagnostic Residual Gas Analyzer	By C.Christopher Klepper
P4.049 Topic D	Forecasting time series for recognition of anomalous behaviors in waveforms	By Gonzalo Farias
P4.050 Topic D	General overview of the ITER low field side reflectometer diagnostic system	By Ali Zolfaghari
P4.051 Topic D	Design of Thomson Scattering Diagnostics System for VEST	By Young-Gi Kim
P4.052 Topic D	Wide-band optical coupling isolation amplifier for the Joint TEXT tokamak	By Ming-Jun Pan
P4.053 Topic D	A self-description data framework for Tokamak control system design	By Jing Zhang
P4.054 Topic D	Radiation of the megaamper Z-pinches: measurements and theoretical modeling	By Vladimir Zaitsev
P4.055 Topic D	Compact, battery powered and wireless digitizers for in situ data acquisitions in the sunist spherical tokamak	By Rui Ke
P4.056 Topic D	Global variance reduction techniques in MCNP for ITER representative geometry	By Lucía Pérez
P4.057 Topic D	Integration of advanced data acquisition applications using FPGA-based FlexRIO devices in ITER's CODAC Core System	By Mariano Ruíz
P4.058 Topic D	RIO EPICS device support application case study on an Ion Source Control System (ISHP)	By Diego Sanz
P4.059 Topic D	A high throughput data acquisition and processing model for applications based on gpus	By Julián Nieto
P4.060 Topic D	Current status of EU activities for the Remote Data Access System of the ITER Remote Experimentation Centre	By Gianmaria De Tommasi
P4.061 Topic D	Langmuir probes design for the actively cooled divertor baffle in WEST	By Maurizio Cacace
P4.062 Topic D	The Absolute Wavelength Calibration of imaging X-ray Crystal Spectrometer	By Xiayun Pan

P4.063 Topic D	Calibration of the toroidal charge exchange recombination spectroscopy on EAST	By Yi Zhang
P4.064 Topic D	Development of EAST spectroscopy diagnostics based on neutral beam injection	By Minyou Ye
P4.065 Topic D	Core Plasma Zonal Flows in HT-7 tokamak with Collective Scattering Density Fluctuation Measurement	By Yi Yu
P4.066 Topic D	Overview video diagnostics for W7-X stellarator	By Gábor Kocsis
P4.067 Topic D	Development of neutral lithium injector for beam emission spectroscopy plasma diagnostic system	By József Németh
P4.068 Topic D	Firmware and software development for Event Detection Intelligent Camera	By Tamás Szabolics
P4.069 Topic E	High Temperature Superconductor Current Leads for the Tokamak JT-60SA	By Reinhard Heller
P4.070 Topic E	Electromagnetic and mechanical analysis of a toroidal field coil winding pack for EU DEMO	By Pattabhi Vishnuvardhan Gade
P4.071 Topic E	Analysis of the flow imbalance in the KSTAR cryogenic circuit	By Hyun-Jung Lee
P4.072 Topic E	Final Design of the Korean AC/DC Converters for the ITER Coil Power Supply System	By Jong-Seok Oh
P4.073 Topic E	Development of MgB2 superconducting wires for the low activation superconducting magnet system operated around core D-T plasma	By Yoshimitsu Hishinuma
P4.074 Topic E	Study on mitigating method of large disturbance for helium subcooling system of the LHD helical coils	By Shinji Hamaguchi
P4.076 Topic E	Magnet system of the tokamak T-15 upgrade	By Petr Khvostenko
P4.077 Topic E	First Application of High Temperature Superconducting (HTS) TF Coils on a Tokamak	By Steven Ball
P4.078 Topic E	Numerical Analysis of Modified Central Solenoid Insert Design	By Andrei Khodak

P4.079 Topic E	Analysis on magnetic field power supply of HL-2M tokamak based on the pulsed operation of motor generator	By Xiaolong Liu
P4.080 Topic E	Investigation of Series-Connected IGBTs in fast high-voltage circuit breaker	By Yue Dai
P4.081 Topic E	An ohmic field power supply based on a modified IGBT h-bridge for sino-united spherical tokamak	By Yi Tan
P4.082 Topic E	Optimal design considerations for a Tokamak with a toriodal field magnet system using high-temperature superconductors	By Thomas Lee
P4.083 Topic F	The comparison of heat flux on lower divertor in KSTAR	By Eun Nam Bang
P4.084 Topic F	Effect of wortex flow on the heat transfer coefficient for ITER blanket shield blocks	By Hun-Chea Jung
P4.085 Topic F	Manufacturing and high heat flux testing of tungsten brazed mock-ups for KSTAR divertor	Kyungmin Kim
P4.086 Topic F	Pre-conceptual Design Study on K-DEMO Divertor System	By Kihak Im
P4.087 Topic F	The structure of the tungsten coatings deposited by Combined Magnetron Sputtering and Ion Implantation for nuclear fusion applications	By Eduard Grigore
P4.088 Topic F	Design of the Wendelstein 7-X Inertially Cooled Test Divertor Unit Scraper Element	By Arnold Lumsdaine
P4.089 Topic F	Amorphous tungsten oxide layers exposed to Magnum-PSI divertor-like plasma: retention, morphology and structural properties	By David Dellasega
P4.090 Topic F	Engineering Challenges and Design Progress of the ITER Diagnostic First Wall	By George Douglas Loesser
P4.091 Topic F	Analysis of the Wendelstein 7-X Inertially Cooled Test Divertor Unit Scraper Element	By P. Titus
P4.092 Topic F	Elucidation of sputtering mechanism for carbon-tungsten mixed layer during hydrogen implantation	By Kenta Yuyama
P4.093 Topic F	Preliminary design and analysis of HL-2M first wall and divertor	By Lijun Cai

P4.094 Topic F	Influence of microstructure on the thermal shock performance of CVD tungsten coatings	By Youyun Lian
P4.095 Topic F	Methods to reduce contamination of the ITER VIS/IR diagnostic system first mirror	By Andrey Ushakov
P4.096 Topic F	Study of closed-divertor on liner divertor simulator TPD-Sheet IV	By Yuta Tanaka
P4.097 Topic F	Raman investigation of irradiated amorphous carbon-tungsten materials	By Liga Avotina
P4.099 Topic F	Fatigue testing of plasma facing materials for brazed divertor components	By Mikael Olsson Robbie
P4.100 Topic F	Thermal-Fluid Analysis of the W7-X High Heat-Flux Divertor Scraper Element	By Emily Clark
P4.101 Topic F	Investigation of various nozzles configurations with respect to IFMIF and liquid walls concepts.	By Sotirios Kakarantzas
P4.102 Topic F	The preliminary thermal hydraulic analysis of CFTER divertor	By Peiming Chen
P4.103 Topic F	Study of the flow and heat transfer of supercritical water inside the first wall of water cooled solid breeder blankets	By Pinghui Zhao
P4.104 Topic G	Manufacturing Design of the ITER Vacuum Vessel Lower Port in Korea	By Hyun-Soo Kim
P4.105 Topic G	Piping Structural Design for the ITER Thermal Shield Manifold	By Chang Hyun Noh
P4.106 Topic G	Fabrication of a full-size mock-up for 10º section of ITER vacuum vessel thermal shield	By Dong Kwon Kang
P4.107 Topic G	Development of the ITER Upper Port Stub Extension Assembly Tool and its Mock-up	By Kyoungo Nam
P4.108 Topic G	Recovery process of wall condition in KSTAR vacuum vessel after temporal machine-vent for repair	By Kwangpyo Kim
P4.109 Topic G	Novel divertor design to mitigate neutron irradiation in the helical reactor FFHR-d1A	By Hitoshi Tamura

P4.110 Topic G	Fracture Mechanics Analysis Approach to Assess Structural Integrity of the First Confinement Boundaries in ITER Generic Upper Port Plug Structure (GUPP)	By Eduardo Rodríguez Ordóñez
P4.111 Topic G	3D Thermal-Hydraulic Analysis of two Irregular Field Joints for the ITER Vacuum Vessel	By Laura Savoldi Richard
P4.112 Topic G	A New Trial of TOKAMAK In-vessel Inspection Manipulator	By Liang Du
P4.113 Topic G	Active Cooling System for TOKAMAK In-vessel Operation Manipulator	By Jianjun Yuan
P4.114 Topic G	Trajectory planning of tokamak flexible in-vessel inspection robot	By Weidong Chen
P4.115 Topic G	Vision-based online vibration estimation of the flexible in-vessel inspection robot	By Hesheng Wang
P4.116 Topic G	Vibration Control of a Flexible Manipulator Based on Visual Sensor for In-vessel Inspection	By Wenxi Zhang
P4.117 Topic G	Electromagnetic analyses and optimization for slit configuration of ITER blanket shield block	By Weishan Kang
P4.118 Topic G	Redesign of ITER divertor diagnostic rack: multiphysics simulations and experimental tests	By V.S. Modestov
P4.119 Topic G	Fusion reactor handling operations with cable-driven parallel robots	By Jean-Baptiste Izard
P4.120 Topic G	ITER Vacuum Vessel: Towards the qualification of advanced ultrasonic inspection procedures and positioning devices	By Carmen Pérez
P4.121 Topic G	Analysis of the steady state thermal-hydraulic behaviour of the ITER blanket cooling system	By Pietro Alessandro Di Maio
P4.122 Topic G	A computational procedure for the investigation of whipping effect on ITER High Energy Piping and its application to the ITER divertor primary heat transfer system	By Gandolfo Alessandro Spagnuolo
P4.123 Topic G	Numerical simulation of the transient thermal-hydraulic behaviour of the ITER blanket cooling system under the draining operational procedure	By Silvia Garitta

P4.124 Topic G	Concept design of divertor remote handling system for DEMO	By Dario Carfora
P4.125 Topic G	Implementation of Simulation Lifecycle Management system using ITER Remote Handling case studies	By Romain Sibois
P4.126 Topic G	Modelling and optimising method suitable for advanced development processes for the mechanical components located in the ITER vacuum vessel	By Gabor Veres
P4.127 Topic H	50 Hz deuterium pellet injector for EAST tokamak	By Igor Vinyar
P4.128 Topic H	Tritium control in fusion reactor materials	By Iuri Nicolotti
P4.129 Topic H	Thermo-mechanical study of high heat flux component mock ups for fusion reactors	By Flavia Bonelli
P4.130 Topic H	Novel Technique for Synthesis of Nanocrystalline Li2TiO3 at Room Temperature by High Energy Ball Milling	By S. K. S. Parashar
P4.131 Topic H	Thermal analysis for K-DEMO breeding blanket and flow header using CFD and MARS code	By Il Woong Park
P4.132 Topic H	Deuterium permeation in erbium oxide coating and RAFM steel via liquid Li-Pb alloy	By Takumi Chikada
P4.133 Topic H	Preliminary synthesize test of two-phase material for tritium breeder	By Seiya Ogawa
P4.134 Topic H	Chemical compatibility of lithium meta-titanates with low-activation ferritic steel F82H	By Takayuki Terai
P4.135 Topic H	Three-dimensional flow measurement of a water flow in a sphere-packed pipe by digital holographic PTV	By Shin-Ichi Satake
P4.136 Topic H	Single pebble experiments to determine: applicability of Hertzian theory for pebble interactions, individual pebble modulus of elasticity, and pebble crushing in ensembles.	By Alice Ying
P4.137 Topic H	Water-LiPb interaction study	By Marica Eboli

P4.138 Topic H	Analysis of the thermo-mechanical behaviour of the DEMO Water-Cooled Lithium Lead breeding blanket module under normal operation steady state conditions	By Pietro Arena
P4.139 Topic H	Blind scoping predictions for PAV experimental recovery efficiencies from a dynamic numeric model	By Elisabet Mas De Les Valls
P4.140 Topic H	Modelling the thermal-hydraulic dynamic behaviour of a generic fusion plant with dual coolant blanket and a supercritical CO2 power cycle using RELAP5-3D	By Lluís Batet
P4.141 Topic H	Formation and annihilation of radiation defects and radiolysis products in modified lithium orthosilicate pebbles with addition of titania	By Arturs Zarins
P4.142 Topic H	Spatially and temporally dependant transmutation in HCPB breeder blankets	By Jonathan Shimwell
P4.143 Topic H	Thermal-hydraulic Analysis on Water-cooled Breeder Blanket for CFETR	By Yun Guo
P4.144 Topic H	Thermal analysis of the pebble beds for CFETR helium cooled solid breeder blanket	By Guangming Zhou
P4.145 Topic H	Design and research on the measurement platform of the effective thermal conductivity for Li4SiO4 and Li2TiO3 pebble bed	By Li Yuanjie
P4.146 Topic H	Shutdown dose rate analyses for the WCCB CFETR	By Peng Lu
P4.147 Topic H	Optimization of coolant flow distribution for CFETR helium cooled solid breeder blanket	By Min Li
P4.148 Topic H	Preliminary Neutronics Design and Analysis of Helium Cooled Solid Breeder Blanket for CFETR	By Zhongliang Lv
P4.149 Topic H	Thermal and structural analysis of the first wall for CFETR helium cooled solid breeder blanket	By Qianwen Liu
P4.150 Topic H	Operating modes of electrochemical H-concentration probes for tritium sensors	By Jordi Abellà

P4.151 Topic I	Failure of a Lithium-filled Target and Some Implications for Fusion Components	By Richard Nygren
P4.152 Topic I	Why is 9%Cr an optimal concentration for RAFM steels? A physical explanation.	By Dmitry Terentyev
P4.153 Topic I	D desorption behavior for Fe2+ damaged W with various damage concentration	By Yasuhisa Oya
P4.154 Topic I	Spark plasma sintered optical ceramics for fusion applications	By Eliko Tõldsepp
P4.155 Topic I	Novel approach for joining Ceramic Matrix Composites for very high temperature applications	By Cristina Jiménez
P4.156 Topic I	Impact properties of dissimilar weld joint between F82H low-activation ferritic steel and type 316L stainless steel after neutron irradiation	By Haiying Fu
P4.157 Topic I	Corrosion of steels in molten tin (Sn) and tin lithium alloy (Sn-Li)	By Masatoshi Kondo
P4.158 Topic I	Study on fabrication method of lithium alloy with metal grains	By Yuu Nakajima
P4.159 Topic I	Surface grain orientation and 2D texturing of tungsten by laser triggered local melting and rapid solidification	By Jing Ma
P4.160 Topic I	Problems encountered during selective laser melting of tungsten	By Xin Zhou
P4.161 Topic I	Microstructural and mechanical characterization of Cu-0.8wt%Y	By Gabriel Carro Sevillano
P4.162 Topic I	Microstructural and mechanical characteristics of ITER-grade CuCrZr processed by equal channel angular pressing	By Aaron Hernández-Pérez
P4.163 Topic I	Magnetic properties qualification of European Reduced Activation of Ferritic-Martensitic steel ASTURFER®	By Luis Sedano
P4.164 Topic I	Results of the RAMI analyses performed for the IFMIF accelerator facility in the engineering design phase.	By Enric Bargalló

P4.165 Topic I	Synergistic effects of ELMs and steady state H and H/He irradiation on tungsten in plasma facing components.	By Nathan Lemahieu
P4.166 Topic I	Thermomechanical properties of electron beam modified elastomer/ polypropylene composites: insulation materials for nuclear power plant facilities	By Gunta Kizane
P4.167 Topic I	Brazing development and interfacial metallurgy study of tungsten to copper	By David Easton
P4.168 Topic I	The microstructure observations of W-Cu dissimilar brazed joint using Au80Cu20 braze alloy	By Yuxuan Zhang
P4.169 Topic I	Experimental Determination of Solubility Values for Hydrogen Isotopes in Eutectic Pb-Li	By Gorka Alberro
P4.170 Topic I	Influence of the P content on the transport parameters of hydrogen in Fe alloys	By Igor Peñalva
P4.171 Topic I	Tensile and impact properties of CLAM steels as ITER-TBM-China candidate structural material after 1~3 dpa neutron irradiation	By Lei Peng
P4.172 Topic I	The influence of helium-vacancy clusters on the critical resolved shear stress of Fe-Cr alloys	By Jingyi Shi
P4.173 Topic I	Elevated temperature performance assessment of CFETR candidated structure materials	By Zhang Xiansheng
P4.174 Topic J	Two-phase MHD energy conversion from buoyancy-driven flows of liquid metal coolant	By Charles Wood
P4.175 Topic J	Numerical research on factors influencing dust migration during a loss of vacuum accident	By Liqiang Hou
P4.177 Topic J	Validation of SEACAB methodology with Frascati (FNG) photon dose measurements	By Candan Töre
P4.178 Topic J	Preliminary experimental study of liquid lithium water interaction	By Ximing You
P4.179 Topic J	Behavior Analysis and Computer Simulation of Activated Corrosion Products in Fusion Reactors	By Lu Li

P4.165 Topic I	Synergistic effects of ELMs and steady state H and H/He irradiation on tungsten in plasma facing components.	By Nathan Lemahieu
P4.166 Topic I	Thermomechanical properties of electron beam modified elastomer/ polypropylene composites: insulation materials for nuclear power plant facilities	By Gunta Kizane
P4.167 Topic I	Brazing development and interfacial metallurgy study of tungsten to copper	By David Easton
P4.168 Topic I	The microstructure observations of W-Cu dissimilar brazed joint using Au80Cu20 braze alloy	By Yuxuan Zhang
P4.169 Topic I	Experimental Determination of Solubility Values for Hydrogen Isotopes in Eutectic Pb-Li	By Gorka Alberro
P4.170 Topic I	Influence of the P content on the transport parameters of hydrogen in Fe alloys	By Igor Peñalva
P4.171 Topic I	Tensile and impact properties of CLAM steels as ITER-TBM-China candidate structural material after 1~3 dpa neutron irradiation	By Lei Peng
P4.172 Topic I	The influence of helium-vacancy clusters on the critical resolved shear stress of Fe-Cr alloys	By Jingyi Shi
P4.173 Topic I	Elevated temperature performance assessment of CFETR candidated structure materials	By Zhang Xiansheng
P4.174 Topic J	Two-phase MHD energy conversion from buoyancy-driven flows of liquid metal coolant	By Charles Wood
P4.175 Topic J	Numerical research on factors influencing dust migration during a loss of vacuum accident	By Liqiang Hou
P4.177 Topic J	Validation of SEACAB methodology with Frascati (FNG) photon dose measurements	By Candan Töre
P4.178 Topic J	Preliminary experimental study of liquid lithium water interaction	By Ximing You
P4.179 Topic J	Behavior Analysis and Computer Simulation of Activated Corrosion Products in Fusion Reactors	By Lu Li

LIST OF PRESENTING AUTHORS

The full author index is to be found in the book of abstracts.

INVITED SPEAKERS

P4.180 Topic J	Validation of cryostat-v vessel aerosol tracing MELCOR and COMSC scale experiment
P4.181 Topic J	Study of neutron and s dose rate cross-talk fro equatorial ports in ITE
P4.182 Topic J	Optimization of a steel/ shield for European TB and HCPB and analysi resulting Shutdown Do
P4.183 Topic J	Characterisation of me combustion with DUST
P4.184 Topic J	Design of a new experi to reproduce LOVA and consequences on dust
P4.186 Topic K	Design, fabrication and of ESS-Bilbao linear ac components
P4.187 Topic K	Pulse duty manageme the injector commissio IFMIF/EVEDA Prototyp

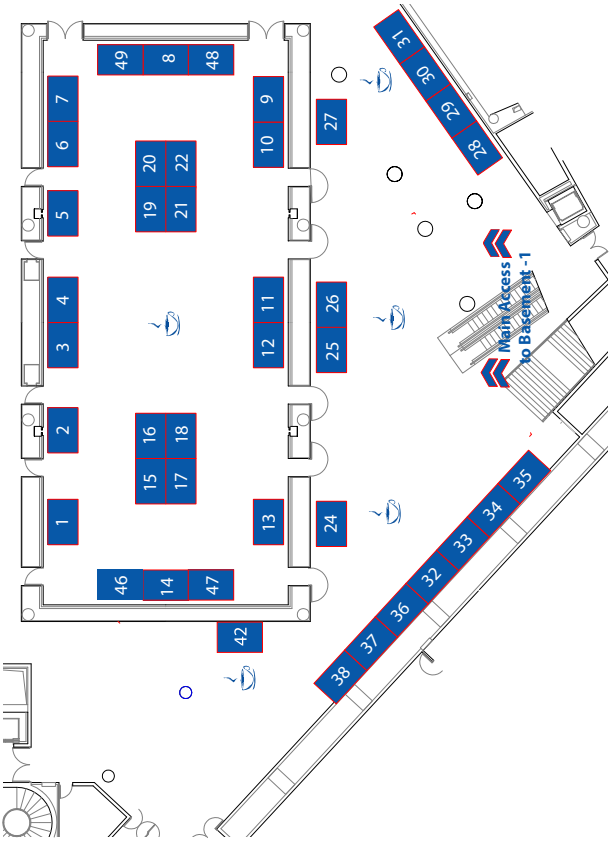
Chang, Min Ho	P3.148
Chang, Yoon-Suk	P3.183
Chantant, Michel	P1.097
Chaudhuri, Paritosh	P2.130
Chen, Dongsheng	P3.169
Chen, Gen	P1.019
Chen, Hongli	O2A.1
Chen, Peiming	P4.102
Chen, Weidong	P4.114
Chen, Yuming	P2.122
Chernov, Viacheslav	O5A.2
Chi, Yuan	P2.058
Chikada, Takumi	P4.132
Chitu, Florin Lucian	P3.009
Cho, Seungyon	P3.149
Cho, Wook	P4.027
Choi, Chang-Ho	P3.008
Choi, Chang-Hwan	P3.110
Chowdhury, Victor	P3.133
Chrzanowski, Janusz	P3.067
Chuan, Li	P2.081
Chuilon, Ben	P1.020
Chun, Young-Bum	P2.175
Cicero, Tindaro	P2.093
Clark, Emily	P4.100
Clough, Matthew	O3A.3
Colomer, Clara	P2.107
Commin, Lorelei	P3.153
Coniglio, Angela	P2.010
Console Camprini, Patrizio	P2.008
Coppola, Roberto	P1.168
Cordier, Jean-Jacques	P3.010
Correia, Miguel	P3.049
Coto, Rubén	P2.164
Craciunescu, Teddy	P1.068
Crescenzi, Fabio	P2.086
Cristescu, Ion	P3.137
Crowley, Brendan	P3.020
Cruz, Dario	P4.002
Cucchiaro, Antonio	O3C.1
Czymek, Guntram	P1.044
Dai, Yue	P4.080
Dalla Palma, Mauro	P2.024
Dammann, Alexis	P3.116
Date, Hiroyuki	P3.103
Daudel, Tristan	P1.054
Day, Ian	P1.008
De Muri, Michela	P3.003
De Pablos, José Luis	P1.060
De Tommasi, Gianmaria	P4.060
Decool, Patrick	P1.081
Delchambre-Demoncheaux Elise	P1.050
Dellasega, David	P4.089
Delmas, Etienne	P3.111
Delogu, Rita Sabrina	P1.039
Delpech, Lena	P1.027
Dhalla, Fahim	P1.021

Wang, Son Jong	P4.024
Wang, Wanjing	P1.090
Wang, Xiaojie	O4C.1
Wang, Zhaoliang	P1.075
Wang, Zhongwei	P1.073
Ward, David	P1.179
Warmer, Felix	P2.183
Weber, Thomas	O3B.4
Webster, Anthony	O2C.3
Weinhorst, Bastian	P3.157
Weinzettl, Vladimir	P2.061
Welte, Stefan	P3.139
Wilson, David	P3.119
Winter, Axel	P2.042
Wolfendale, Michael	P2.127
Wood, Charles	P4.174
Wu, Huapeng	P3.066
Wu, Yican	O1C.1
Wulf, Sven-Erik	P3.154
Xi, Weibin	P1.074
Xia, Fan	P4.039
Xia, Linglong	P3.021
Xia, Tirui	P1.139
Xiansheng, Zhang	P4.173
Xiaojing, Qian	P1.181
Yadav, Ashish	O5B.3
Yagi, Juro	P3.150
Yamamoto, Michiyoshi	P3.011
Yamamoto, Tsuyoshi	P3.059
Yao, Damao	P1.105
Yao, Yong	P1.138
Ye, Minyou	P4.064
Ying, Alice	P4.136
Yoon, Jae Sung	P2.144
Yoshida, Masafumi	P3.032
Yoshihashi, Sachiko	P3.175
You, Jeong-Ha	O4B.1
You, Ximing	P4.178
Yu, Shengpeng	P2.179
Yu, Yi	P4.065
Yu, Yuan	P1.119
Yuan, Jianjun	P4.113
Yuanjie, Li	P4.145
Yuyama, Kenta	P4.092
Zaccaria, Pierluigi	P2.001
Zaitsev, Vladimir	P4.054
Zamengo, Andrea	P2.023
Zammuto, Irene	P3.091
Zanino, Roberto	P4.029
Zanotto, Loris	P2.022
Zarins, Arturs	P4.141
Zaupa, Matteo	P2.003
Zeile, Christian	P3.064
Zeng, Hao	P4.031
Zhai, Yutao	P2.158
Zhang, Jing	P4.053
Zhang, Jun	P4.040
Zhang, Junyu	P2.157
Zhang, Weijun	O4B.3
Zhang, Wenxi	P4.116
Zhang, Yi	P4.063
Zhang, Yuxuan	P4.168
Zhang, Zhexian	P2.152
Zhao, Pinghui	P4.103
Zhao, Wenlong	P1.106
Zheng, Jinxing	P1.071

Zheng, Shanliang	P1.134
Zhou, Guangming	P4.144
Zhou, Shaoheng	P2.180
Zhou, Tingzhi	P1.003
Zhou, Xin	P4.160
Zhou, Zibo	P1.088
Zhu, Zhiqiang	P2.129
Zhuang, Huidong	P1.002
Zito, Pietro	P2.076
Zmitko, Milan	O4A.1
Zolfaghari, Ali	P4.050
Zucchetti, Massimo	P3.188

EXHIBITORS

The exhibition area is located in the basement floor of the venue, Kursaal Congress Centre.



Morning and afternoon coffees will be served in the exhibition area. Refer to the time table for dates and times.

Stand 1 | HKBHF and MATERION

KBHF GmbH
Im KIT-Campus Nord
Gebäude 453, 454, 459
Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen, Germany
Tel. +49 721 608 23640
www.kbhf.org

Materion Brush Beryllium & Composites
14710 W. Portage River South Road
Elmore, OH 43416-9502, USA
www.materion.com/beryllium

Stand 2 | ENEA

Lungotevere Thaon di Revel, 76
00196 Rome, Italy
Tel. +39 06 94005602
www.enea.it

Stand 3 | FRIATEC AG

Steinzeugstrasse 50
68229 Mannheim, Germany
Tel. +49 621 486-2099
www.friatec.de

Stand 4 | CDTI

Cid 4
28001 Madrid, Spain
Tel. +34 91 581 55 00
www.cdti.es

Stand 5 and 6 | CCFE

Culham Science Centre
Abingdon, Oxfordshire OX14 3DB, UK
Tel. +44 1235 466 627
www.ccfe.ac.uk

Stand 7 | OCEM

Via 2 Agosto 1980, nr. 11
40016 San Giorgio di Piano Bologna, Italy
Tel. +39 051 665 6611
www.ocem.com

Stand 8 | University of Rome Tor Vergata

University of Rome Tor Vergata
Via del Politecnico 1
00133 Rome, Italy
Tel. +39 067 259 7202
www.web.uniroma2.it

Stand 9 | AVS Added Value Solutions

Pol. Ind. Sigma Xixilion Kalea 2, Bajo Pabellón 10
20870 Elgoibar, Gipuzkoa, Spain
Tel. +34 943 821 841
www.a-v-s.es

Stand 10 | ITER Organization

Building 72/561, ODG, Communication and External Relations
Route de Vinon-sur-Verdon-CS 90 046
13067 St Paul Lez Durance Cedex, France
Tel. +33 4 42 17 66 15
www.iter.org

Stand 11 and 12 | Fusion For Energy

Josep Pla 2, Torres Diagonal Litoral B3
08019 Barcelona, Spain
Tel. +34 93 489 74 36
www.fusionforenergy.europa.eu

Stand 13 | Rolf Kind GmbH

Nochener Str. 1-3
51647 Gummersbach, Germany
Tel. +49 2261 6033 52
www.r-kind.de

Stand 14 | National Instruments

Europa Empresarial, Rozabella 2, Edf. Berlin, Pl.1
28290 Las Rozas, Madrid, Spain
Tel. +34 91 640 0085
www.ni.com

Stand 15 | Agoria and ITER Belgium

Agoria
Diamant Building, A. Reyers Ln 80
1030 Brussels, Belgium
Tel. +32 2 706 7817
www.agoria.be

ITER Belgium (powered by Agoria)
Bd. Reyers 80
1030 Brussels, Belgium
Tel. +32 485 91 4675
www.iterbelgium.be

Stand 16 | HTMS NV

Blarenberglaan 5
2800 Mechelen, Belgium
Tel. +32 15 220 281
www.htms.be

Stand 17 | Dockweiler AG

An der Autobahn 10/20
19306 Neustadt-Glewe, Germany
Tel. +49 387 5758 169
www.dockweiler.com

Stand 18 | Oxford Technologies

7 Nuffield Way
Abingdon, Oxon OX14 1RL, UK
Tel. +44 01235 522119

Stand 19 to 22 | Jema

Paseo del Circuito 10
20160 Lasarte-Oria, Gipuzkoa, Spain
Tel. +34 943 376 400
www.jemaenergy.com

Stand 24 | D-TACQ

James Watt Building, Scottish Enterprise Technology Park
East Kilbride, G75 0QD, Scotland, UK
Tel. +44 1355 272 511
www.d-tacq.com

Stand 25 and 26 | INEUSTAR, INDUCIENCIA, INMEPRE, CONSORCIO ESS Bilbao, FAGOR AUTOMATION S. COOP, DOILAN TEGIA S. COOP

INEUSTAR, Asociación Española de la Industria de la Ciencia
Polígono Industrial SIGMA, Xixilion 2, Pl. 1ª, Ofice 5
20870 Elgoibar, Gipuzkoa, Spain
Tel. +34 943 20 18 36
www.ineustar.com

INDUCIENCIA, Plataforma Tecnológica Española de la Industria de la Ciencia
Polígono Industrial SIGMA, Xixilion 2, Pl. 1ª, Ofice 5
20870 Elgoibar, Gipuzkoa, Spain
Tel. +34 943 20 18 36
www.induciencia.es

INMEPRE, S.A.
Miravalles 37, Zona Industrial de Betoño
01013 Vitoria-Gasteiz, Alava, Spain
Tel. +34 945 264 755/66
www.inmepre.com

CONSORCIO ESS Bilbao
Polígono Ugaldeguren III, Polígono A - 7 B
48170 Zamudio, Bizkaia, Spain
Tel. +34 94 607 66 28
www.essbilbao.org

FAGOR AUTOMATION S. COOP
Bº San Andrés 19 -Apdo 144
20500 Arrasate-Mondragón, Gipuzkoa, Spain
Tel. +34 943 039 800
www.fagorautomation.es

DOILAN TEGIA S. COOP
Polígono Intxausti, Pabellón 14 I
20213 Zegama, Gipuzkoa, Spain
Tel. +34 943 801 243
www.doilan.info

Stand 27 | Stangenes

1052 East Meadow Circle
Palo Alto, 94303-4271 California, USA
Tel. +1 650 493 0814
www.stangenes.com

Stand 28 to 30 | IK4 Research Alliance - CEIT, Lortek

Polígono Azitain, 3K 2ºG
20600 Eibar, Spain
Tel. +34 943 82 03 50
www.ik4.es

Stand 31 | Struck Innovative System

Harksheider Str.102-A
22399 Hamburg, Germany
Tel. +49 40 6087 30513
www.struck.de

Stand 32 | NFRI (National Fusion Research Institute)

169-148 Gwahak-ro, Yuseong-gu
Daejeon 305-806, Korea
Tel. +82 42 879 5093
www.nfri.re.kr

Stand 33 | DMP

Kurutz-Gain, 12-13
20850 Mendaro, Gipuzkoa, Spain
Tel. +34 943 75 72 09
www.egile.es

Stand 34 | Tecnalia

Parque Tecnológico de San Sebastián
Mikeletegi Pasealekua, 2
20009 Donostia-San Sebastián, Spain
Tel. +34 667 115 975
www.tecnalia.com

Stand 35 | CEA-IRFM

Cadarache - Bat. 513
13108 St. Paul Lez Durance, France
Tel. +33 4 4225 2584
www.irfm.cea.fr

Stand 36 to 38 | Dutch Scientific

Industrial Liaison Officer for ITER and ESS (European Spallation Source)
Dutch Institute for Fundamental Energy Research (DIFFER)
P.O. Box 1207, 3430 BE Nieuwegein, The Netherlands
Tel. +31 653 402 853
www.ITER-NL.nl

Stand 42 | Thermocoax

40 bd Henri Sellier
92156 Suresnes Cedex, France
Tel. +33 1 4138 8050
www.thermocoax.com

Stand 46 | ITER Switzerland and AMPEGON

ITER Switzerland
Centre de Recherches en Physique des Plasmas
EPFL, Station 13
1015 Lausanne, Switzerland
Tel. +41 21 693 3491
www.iter-industry.ch

AMPEGON
Spinnereistrasse 5
5300 Turgi, Switzerland
Tel. +41 58 710 4400
www.ampegon.com

Stand 47 | Research Instruments

Friedrich-Ebert Str. 1
51429 Bergisch, Gladbach, Germany
Tel. +49 2204 7062 2583
www.research-instruments.de

Stand 48 | ICEX

Paseo de la Castellana 14-16
28046 Madrid, Spain
Tel. +34 91 349 61 94
www.icex.es

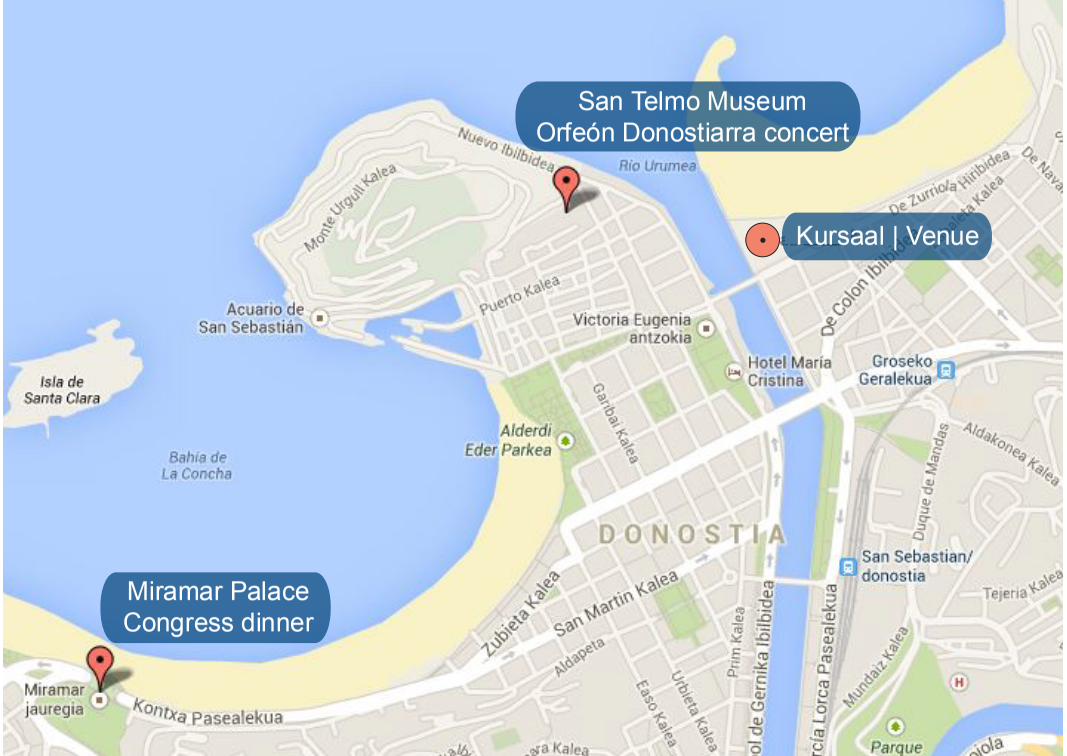
Stand 49 | CECOM

Via Tiburtina Km 18,700
00012 Guidonia Montecelio, Italy
T +39 774 355 777
www.cecomweb.com

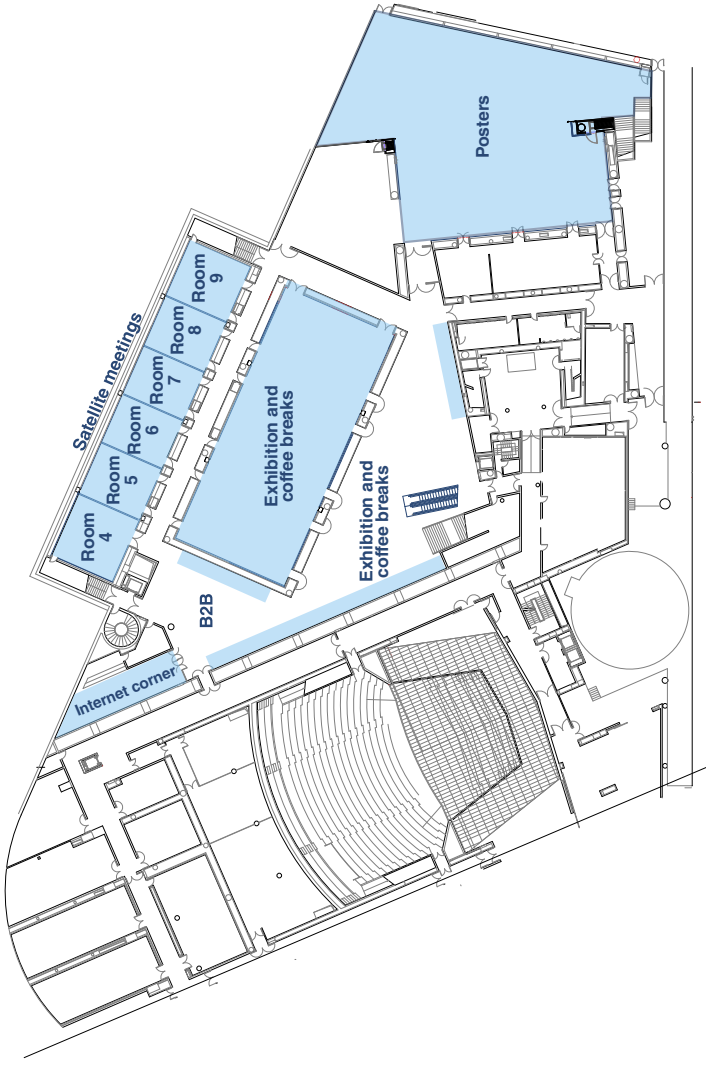
NOTES

NOTES

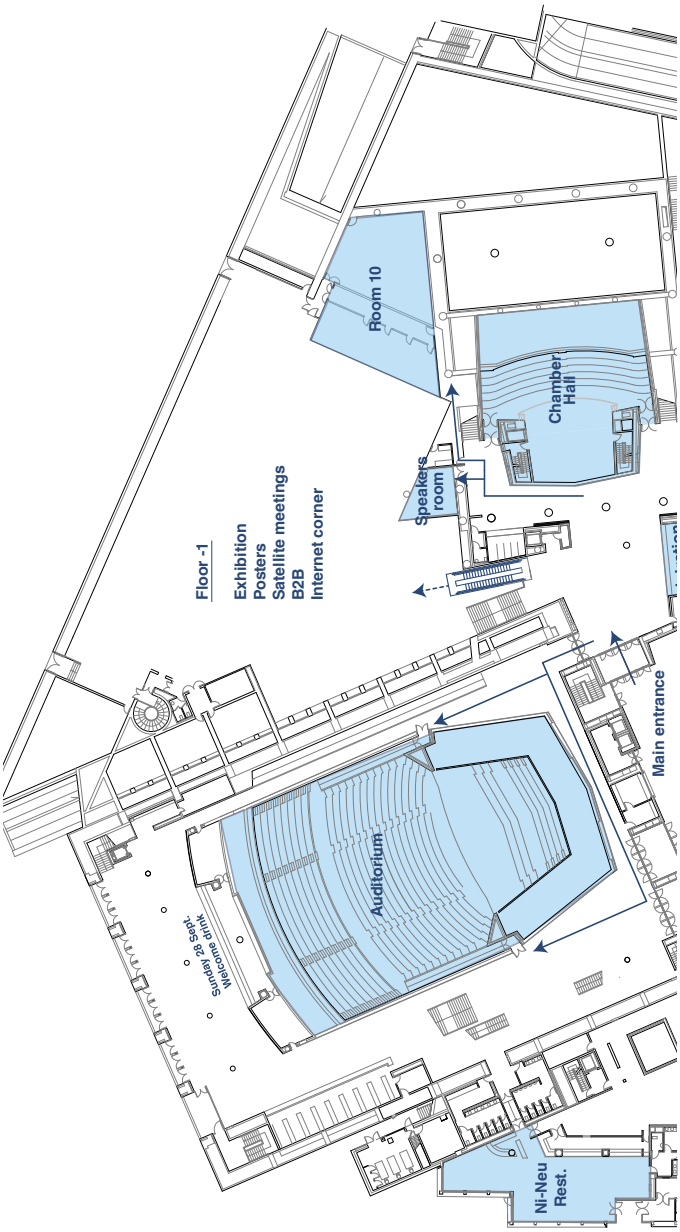
NOTES


San Telmo Museum
Orfeón Donostiarra concert
Kursaal | Venue
Miramar Palace
Congress dinner
Nuevo Ibilbidea
Río Urumea
Monte Urgull Kalea
Puerto Kalea
Acuario de
San Sebastián
Victoria Eugenia
antzokia
Hotel María
Cristina
Groseko
Geralekua
Isla de
Santa Clara
Bahía de
La Concha
Alderdi
Eder Parkea
Garibai Kalea
De Colon Ibilbidea
Aldakonea Kalea
Duque de Mandas
DONOSTIA
San Sebastian/
donostia
Tejeria Kalea
Zubieta Kalea
San Martin Kalea
Aldapeta
Easo Kalea
Urbieta Kalea
Prim Kalea
Mundaiz Kalea
Miramar
jauregia
Kontxa Pasealekua
Parque

CONFERENCE VENUE, FLOOR -1



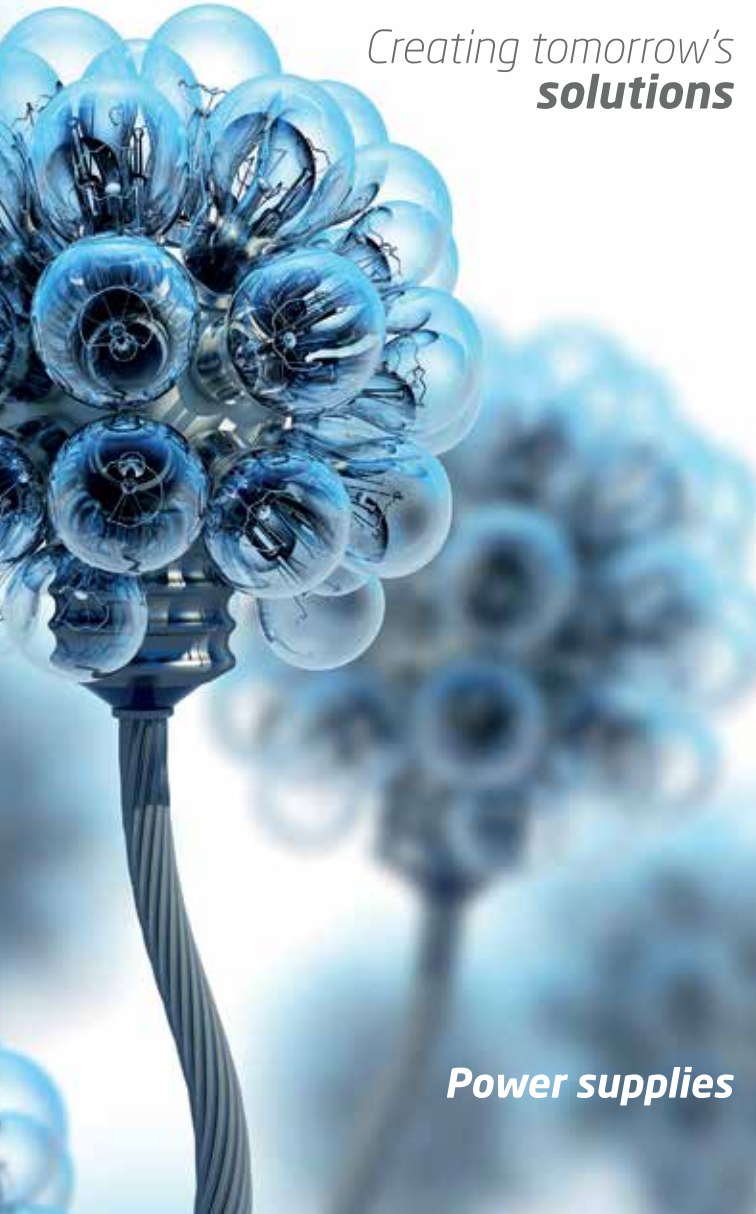
CONFERENCE VENUE, GROUND FLOOR



Jema

IRIZAR GROUP

Creating tomorrow's
solutions



Power supplies

GOLD SPONSOR

Jema

OTHER SPONSORS

ALPHYSICA

GIPUZKOA

donostia san sebastián

donostia sustapena fomento sansebastián

Gipuzkoako Foru Aldundia

WITH THE COLABORATION OF

Ciemat

CDTI

ineustar

ceit

EXHIBITORS

AMPEGON

AVS

CEA

CCFE

CECOM

ceit

CDTI

dmo

D-EV-CKWEILER

Dutch Scientific

ENEA

150 Years FRIATEC

FUSION FOR ENERGY

HTMS

ICEX España Exportación e Inversiones

Imtech

ineustar

induciencia

iter

Jema

KBHF

KIND

MATERION

NFRI

NATIONAL INSTRUMENTS

OCEM POWER ELECTRONICS

OXFORD TECHNOLOGIES

research instruments

STANGENES

struck innovative systeme

tecnalia

FUSION ENERGY

THERMOCOAX